KODAK SAFETY A FILM +

DOCUMENT RESUME

ED 032 721 EF 003 455

By-Stull, Don; Heder, Lajos

Boston Infill Schools.

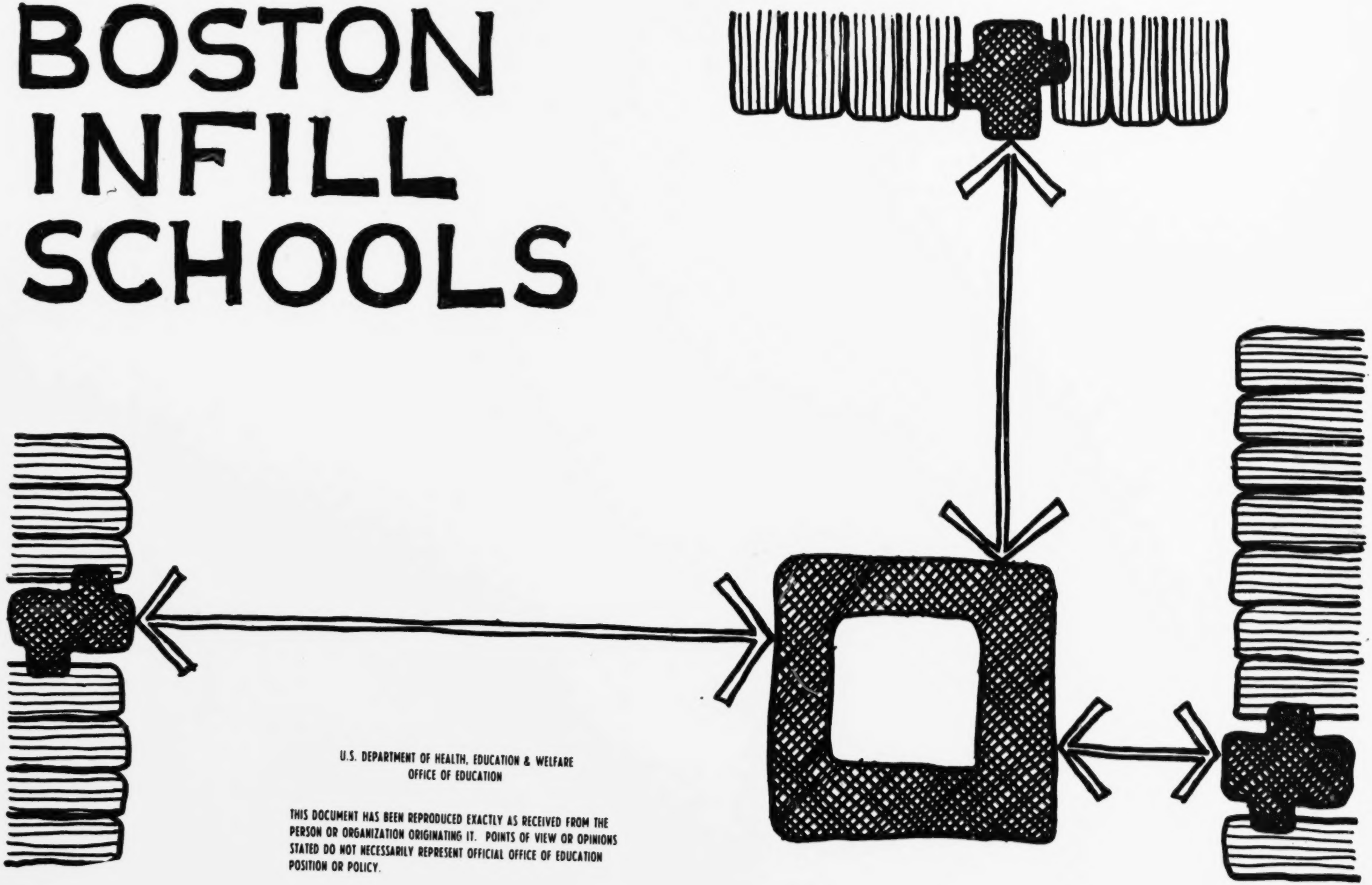
Boston Public Schools, Mass. Educational Planning Center.
Pub Date 68
Note-32p.
EDRS Price MF-$0.25 HC-$1.70
Descriptors-*Component Building Systems, Facility Expansion, Facility Requirements, *Prefabrication, *School Buildings, School Construction, School Design, *School Planning, *Urban Schools

Concepts and recommendations are presented regarding a proposed system of dispersed classroom clusters or 'infill schools'. These small independent urban schools would be housed in prefabricated structures developed for infill housing in Boston. The infill unit uses pre-designed building components and can be constructed in a few weeks. The infill housing units are described and their proposed use as educational facilities discussed. Diagrammatic representations illustrate the interrelationship of infill schools and community resources. The development of a pilot infill school is proposed. (FS)

EDO 327721

EF 003 455

BOSTON INFILL SCHOOLS



U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

THIS DOCUMENT WAS PREPARED FOR THE EDUCATIONAL PLANNING CENTER OF THE BOSTON PUBLIC SCHOOLS WHICH HAS BEEN STUDYING ALTERNATIVE SOLUTIONS TO PROBLEMS IN URBAN EDUCATION RELATING BOTH TO PROGRAM AND TO FACILITY PLANNING.

THE CONCEPTS AND RECOMMENDATION HEREIN PRESENTED ARE IN A DEVELOPMENT STAGE. THE PURPOSE OF THE PUBLICATION IS TO STIMULATE DISCUSSION AND ELICIT REACTIONS TO THESE CONCEPTS PRIOR TO THEIR FURTHER DEVELOPMENT.

THIS PUBLICATION IS THE FURTHER DEVELOPMENT OF A PROPOSAL (A NEW LOOK AT NEW SCHOOLS IN THE SOUTH END) MADE INITIALLY ON DECEMBER 9, 1968 BY DAVID ROBINSON AND HENDRICK HOLMES, CONSULTANTS, EDUCATIONAL PLANNING CENTER, BOSTON PUBLIC SCHOOLS.

THIS PUBLICATION IS ALSO AN EXTENSION OF THE CONCEPT OF INFILL HOUSING DEVELOPED FOR THE CITY OF BOSTON. THE INFILL HOUSING UNIT WAS DESIGNED BY STULL ASSOCIATES INC., ARCHITECTS, BOSTON, MASS. DON STULL AND LAJOS HEDER OF STULL ASSOCIATES HAVE COLLABORATED IN THE DEVELOPMENT AND PREPARATION OF THIS DOCUMENT ON INFILL SCHOOLS.

THE DEVELOPER FOR THE INFILL HOUSING PROGRAM IS THE DEVELOPMENT CORPORATION OF AMERICA.

PREPARED FOR THE EDUCATIONAL PLANNING CENTER, BOSTON PUBLIC SCHOOLS, BOSTON, MASSACHUSETTS.

CONTENTS

A. A SYSTEM OF INFILL SCHOOLS

B. THE BOSTON INFILL HOUSING PROGRAM

C. THE USE OF INFILL UNITS AS SCHOOLS

D. THE DEVELOPMENT OF A PILOT INFILL SCHOOL

A. A SYSTEM OF INFILL SCHOOLS

BOSTON, LIKE MANY OF THE OLDER CITIES OF THE NATION, HAS A LEGACY OF SCHOOL BUILDINGS THAT IN THEIR TIME WERE SOURCES OF CIVIC PRIDE, BUT WHICH OFTEN HAVE BECOME OUT-DATED AND WORN OUT OBJECTS OF WIDESPREAD STUDENT AND COMMUNITY HOSTILITY. TIMES HAVE CHANGED: TOO OFTEN THE SCHOOLS HAVE NOT. AS COMMUNITIES HAVE COME AND GONE, THE SCHOOLS HAVE REMAINED BEHIND, PERMANENT BUT NOT ALWAYS RELEVANT. INCREASINGLY, CITY SCHOOLS HAVE HAD TO SERVE COMMUNITIES SIGNIFICANTLY DIFFERENT THAN THOSE FOR WHICH THEY WERE ORIGINALLY DESIGNED. THE RAPID RATE OF INNOVATION AND TECHNOLOGICAL CHANGE WITHIN THE FIELD OF EDUCATION HAS COMPOUNDED THE PROBLEM OF KEEPING THE SCHOOLS UP TO DATE.

IN RECOGNITION OF THE SERIOUS NEED FOR NEW SCHOOL FACILITIES, BOSTON HAS EMBARKED ON A MAJOR CAPITAL IMPROVEMENT PROGRAM TO REPLACE OLD SCHOOLS WITH NEW ONES. 23 NEW SCHOOLS HAVE BEEN APPROVED BY THE STATE BOARD OF EDUCATION, THE SCHOOL COMMITTEE, AND THE CITY, AND ARE IN VARIOUS STAGES OF PLANNING, DESIGN AND CONSTRUCTION.

MOST NEW SCHOOLS ARE BEING PLANNED AS VERY LARGE SCHOOLS--FROM 800 TO 1200 PUPILS IN GRADES K-5. MOST ARE BEING PLANNED AS 'COMMUNITY SCHOOLS' AND THAT HAS BEEN TAKEN TO MEAN LARGE SCHOOLS SERVING AN AREA GREATER THAN A SINGLE NEIGHBORHOOD AND CONTAINING A CONCENTRATION OF FACILITIES FOR ADULT USE. THE DESIRE TO USE NEW SCHOOLS TO ACHIEVE RACIAL BALANCE AS WELL AS THE ECONOMIC DESIRE TO CONCENTRATE RESOURCES TO OBTAIN MAXIMUM EFFICIENCY HAVE BEEN TWO KEY FACTORS IN THE DECISION TO BUILD LARGE SELF-CONTAINED SCHOOLS.

BUILDING LARGE SELF-CONTAINED SCHOOLS RAISES SEVERAL ISSUES WHICH WILL HAVE TO BE EXAMINED AS FEED-BACK AND RESEARCH DATA PRESENTLY LACKING BECOMES AVAILABLE.

FIRST, THE MULTIPLE PROBLEMS OF ACQUIRING LARGE SITES ADD TO THE COMPLEXITIES OF THE LONG AND COMPLICATED PROCESS OF BUILDING NEW SCHOOLS IN BOSTON. IN CITIES, LARGE VACANT SITES DO NOT EXIST. ACQUISITION USUALLY INVOLVES TAKING BUSINESSES OR HOMES. THIS MEANS REDUCING THE TAX ROLLS EVEN FURTHER, UPROOTING FAMILIES AND DISRUPTING COMMUNITIES. DISPLACING FAMILIES CREATES HARDSHIP AND DISLOCATION WHICH IN THE PAST HAS GENERATED TREMENDOUS HOSTILITY. DISPLACING BUSINESSES HAS OFTEN RESULTED IN THEIR CLOSING OR RELOCATING OUTSIDE THE CITY. IN SHORT, THE PROBLEMS OF ACQUIRING LARGE SITES ARE MANY AND ARE ONES WHICH ARE LIKELY TO FORCE DELAYS IN THE SCHOOL BUILDING PROGRAM.

ANOTHER ISSUE IS THE RELATION OF THESE LARGE SCHOOLS TO THEIR COMMUNITIES. THE PRESENT CONCEPT OF LARGE 'COMMUNITY SCHOOLS' IMPLIES A CENTRALIZATION OF COMMUNITY ACTIVITIES THAT MAY NOT BE APPROPRIATE IN ALL COMMUNITIES--ESPECIALLY URBAN ONES. URBAN COMMUNITIES ARE OFTEN MORE HETEROGENEOUS WITH A GREATER VARIETY OF EXISTING INSTITUTIONS THAN NEWER SUBURBAN COMMUNITIES. LARGE SCHOOLS CAN EASILY IGNORE EXISTING COMMUNITY INSTITUTIONS AND NATURALLY DEVELOPED PATTERNS OF BEHAVIOR.

SINCE COMMUNITIES OBVIOUSLY DIFFER---AND CHANGE--IF SCHOOLS ARE TO BE RESPONSIVE TO AND REFLECT THEIR COMMUNITIES, THEY WILL HAVE TO BE DIFFERENT TOO. AND THEY WILL HAVE TO BE FLEXIBLE ENOUGH TO RESPOND TO CHANGES IN THE COMMUNITY AND TO DEVELOPMENTS WITHIN THE FIELD OF EDUCATION. THERE IS SOME QUESTION AS TO HOW RESPONSIVE LARGE SCHOOLS CAN BE TO CHANGES IN THE COMMUNITY. (MOVABLE WALLS WON'T SOLVE THIS PROBLEM.) SMALL SCHOOLS MAY WELL PROVE MORE ADAPTABLE AND RESPONSIVE.

EVEN MORE IMPORTANT ARE THE EDUCATIONAL ISSUES INVOLVED. WHILE MOST PUBLIC SCHOOL ADMINISTRATORS HAVE OPTED FOR LARGE SCHOOLS IN ORDER TO ACHIEVE BETTER EDUCATION THROUGH AN ECONOMIC CONCENTRATION OF RESOURCES AND EFFICIENT HANDLING OF STUDENTS, EDUCATORS OUTSIDE THE PUBLIC SCHOOL SYSTEMS HAVE GENERALLY SOUGHT ALTERNATIVES IN SMALLER ORGANIZATIONS LESS SELF-CONTAINED.

NO DOUBT THEIR CHOICE IS IN PART A PRAGMATIC RESPONSE TO FINANCIAL AND SPACIAL CONSTRAINTS; HOWEVER, THERE IS A STRONG AND GROWING PHILOSOPHICAL RATIONALE FOR NOT ONLY SMALLER CLASSES BUT SMALLER SCHOOLS. PAUL GOODMAN, IN PARTICULAR, HAS SUGGESTED 'MINI-SCHOOLS' BE BUILT SO AS TO IMPROVE THE TEACHING OF READING (AS WELL AS EDUCATION IN GENERAL) THROUGH THE FLEXIBLE AND INTIMATE INTERACTION BETWEEN STUDENT, TEACHER AND COMMUNITY THAT SUCH SMALL SCHOOLS WOULD ENCOURAGE.

EXAMPLES OF ALTERNATIVES WHICH AT LEAST IN THE SHORT RUN HAVE PROVEN TO BE VIABLE ARE STORE-FRONT SCHOOLS, THE STREET ACADEMIES DEVELOPED IN NEW YORK CITY THROUGH THE URBAN LEAGUE, COMMUNITY SCHOOLS IN BLACK COMMUNITIES THROUGHOUT THE COUNTRY AND INDEPENDENT PRIVATE SCHOOLS GENERALLY IN SUBURBAN COMMUNITIES. THESE SCHOOLS MOST TYPICALLY HAVE SERVED YOUNG CHILDREN AND HIGH SCHOOL DROP OUTS.

CRITICS OF LARGE CITY SCHOOLS POINT TO THE FAILURES OF LARGE SCHOOLS TO EDUCATE CHILDREN PROPERLY (HIGH DROP OUT RATES, LOW ACHIEVEMENT LEVELS, ETC.) AND THE RIGIDITY LARGE SCHOOLS HAVE FORCED UPON BOTH TEACHERS AND STUDENTS. THESE CONDITIONS, THEY CONTEND, ARE BRED BY THE SCHOOLS AND ARE INEVITABLE IN THE INSTITUTIONAL ATMOSPHERE MOST LARGE SCHOOLS CONVEY.

SMALLER SCHOOLS DO CONTAIN FEWER RESOURCES BUT ARE GENERALLY MORE FLEXIBLE IN TAPPING RESOURCES THAT EXIST OUTSIDE THE SCHOOLS--IN THE COMMUNITY AND IN THE CITY AT LARGE. WHAT PROPONENTS OF SMALL SCHOOLS HAVE MADE US AWARE OF IS THAT THE CONCEPT OF RESOURCES MUST BE BROADENED TO INCLUDE NOT ONLY THE NEW TECHNOLOGY AVAILABLE IN CENTRALIZED SCHOOLS BUT ALSO THE HOST OF HUMAN AND SOCIAL RESOURCES THAT EXIST OUTSIDE OF SCHOOLS. THESE RESOURCES ARE ALSO IMPORTANT FOR EDUCATION.

WE RECOGNIZE THAT THE CONCEPT OF LARGE COMMUNITY SCHOOLS HAS BEEN DEVELOPED AS AN ALTERNATIVE TO THE SMALL NEIGHBORHOOD SCHOOL. WE DO NOT FEEL THAT THE NEIGHBORHOOD SCHOOL IS A VIABLE INSTITUTION. IN THE PAST, NEIGHBORHOOD SCHOOLS HAVE BEEN SMALL AND SELF-CONTAINED BUT WITHOUT THE RESOURCES NECESSARY TO SUSTAIN GOOD EDUCATION. AT THE SAME TIME, DESPITE THEIR SIZE AND NEIGHBORHOOD ORIENTATION, THEY HAVE FAILED TO ESTABLISH STRONG TIES WITH THEIR NEIGHBORHOODS. THEIR SIZE AND ISOLATION HAVE CUT THEM OFF FROM MANY OF THE RESOURCES WE FEEL ARE ESSENTIAL TO EDUCATION.

IT IS WITH ALL THESE ISSUES IN MIND THAT THIS PUBLICATION HAS BEEN DEVELOPED. BRIEFLY, IT PROPOSES A NEW TYPE OF SCHOOL ORGANIZATION CONSISTING OF INFILL SCHOOLS LINKED TO A CENTRAL RESOURCE CENTER.

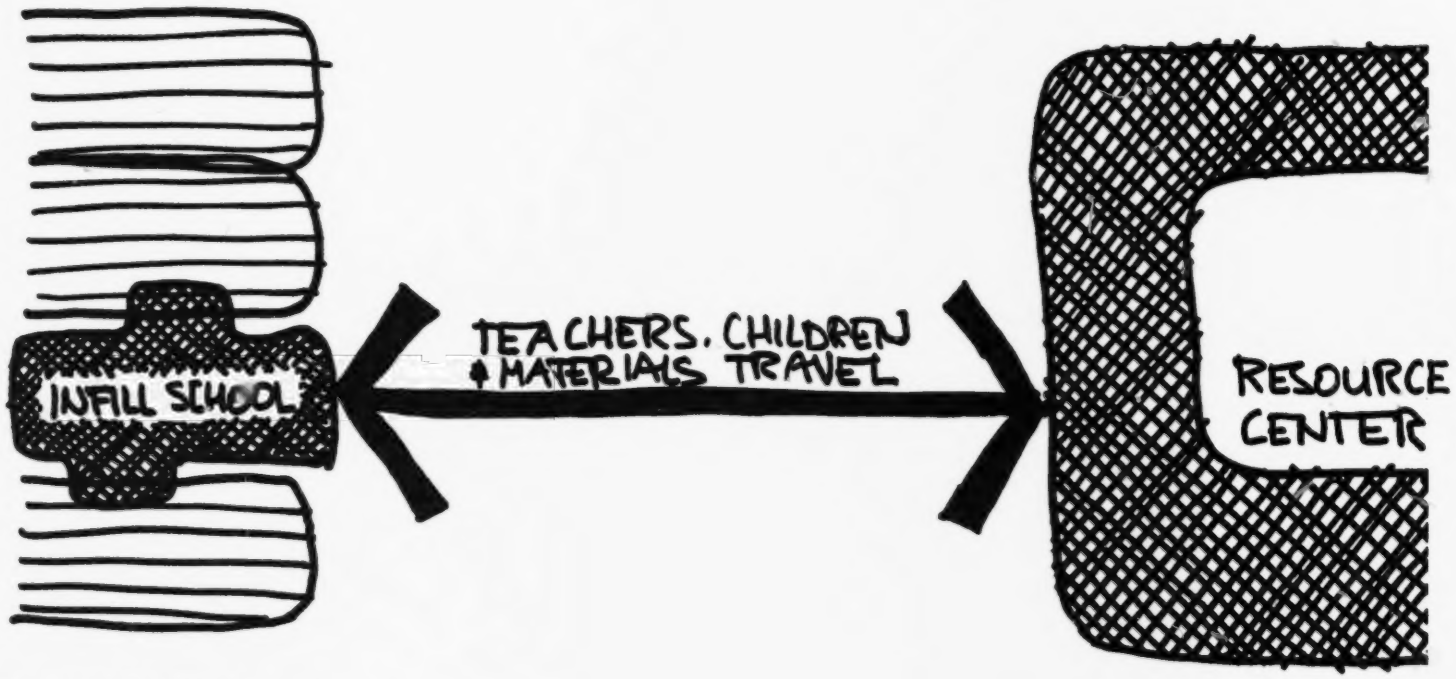
IN THE RESOURCE CENTERS, EXPENSIVE SCHOOL RESOURCES COULD BE CONCENTRATED TO AVOID DUPLICATION AND ALLOW ECONOMIES OF SCALE. THE INFILL SCHOOLS WOULD BE IN CLOSE TOUCH WITH LOCAL NEIGHBORHOODS AND ABLE TO RESPOND TO THEIR NEEDS. IN SHORT, THIS PROPOSAL SEEKS TO MEET THE NEEDS OF STUDENTS BY PROVIDING ALL THE SOPHISTICATED RESOURCES OF LARGE SELF-CONTAINED SCHOOLS AND AT THE SAME TIME PROVIDE MANY OF THE ADVANTAGES ACCRUING TO SMALLER, INDEPENDENT SCHOOL ORGANIZATIONS.

IN THE PAST, PUBLIC SCHOOL SYSTEMS HAVE USUALLY NOT BEEN ABLE TO DUPLICATE THE FLEXIBILITY AND ORGANIC QUALITY OF SMALLER INDEPENDENT SCHOOLS. IN THE PAST, THOSE DESIRING ALTERNATIVES TO LARGE INSTITUTIONAL SCHOOLS HAVE HAD TO LOOK OUTSIDE THE SYSTEM TO SCHOOLS DIVORCED FROM RESOURCES PROVIDED BY PUBLIC REVENUES. THIS PROPOSAL SEEKS TO COMBINE THE BEST OF BOTH LARGE PUBLIC SCHOOLS AND SMALLER INDEPENDENT ONES.

THE PHYSICAL FORM FOR THE DISPERSED CLASSROOM CLUSTERS WOULD BE THE PRE-COMPONETIZED STRUCTURE DEVELOPED FOR INFILL HOUSING UNITS IN BOSTON. THE STRUCTURE ALREADY EXISTS. THE INFILL UNIT USES PRE-DESIGNED BUILDING COMPONENTS, AND HAS BEEN DESIGNED TO FIT ON VARYING SIZES OF CITY-OWNED VACANT LOTS. IT CAN BE CONSTRUCTED IN A MATTER OF WEEKS. THE INFILL STRUCTURE PROVIDES FOUR FLOORS OF FREESPAN SPACE EASILY ADAPTABLE FOR SCHOOL USE.

ALTHOUGH REPLACING OLD SCHOOLS IS SOMETIMES MISTAKENLY REGARDED AS PURELY A BRICKS AND MORTAR PROBLEM, THE REAL CHALLENGE LIES IN CHANGING THE ORGANIZATION, GOALS AND ATTITUDES OF PUBLIC EDUCATION. THIS PROPOSAL THEN SEEKS TO RECOGNIZE SCHOOLS AS ORGANIZATIONS, NOT JUST PHYSICAL STRUCTURES.

INFILL SCHOOL LINKED TO RESOURCE CENTER



IN INFILL:

- GENERAL CLASSROOMS
- YOUNGEST CHILDREN SPEND MOST TIME HERE
- GRADUAL TRANSITION FROM HOME TO SCHOOL TO CENTER.

IN CENTER:

- SPECIAL CLASSES
- SPECIAL PROGRAMS
- SPECIAL MATERIALS & EQUIPMENT
- ADMINISTRATION
- TEACHERS' FACILITIES.

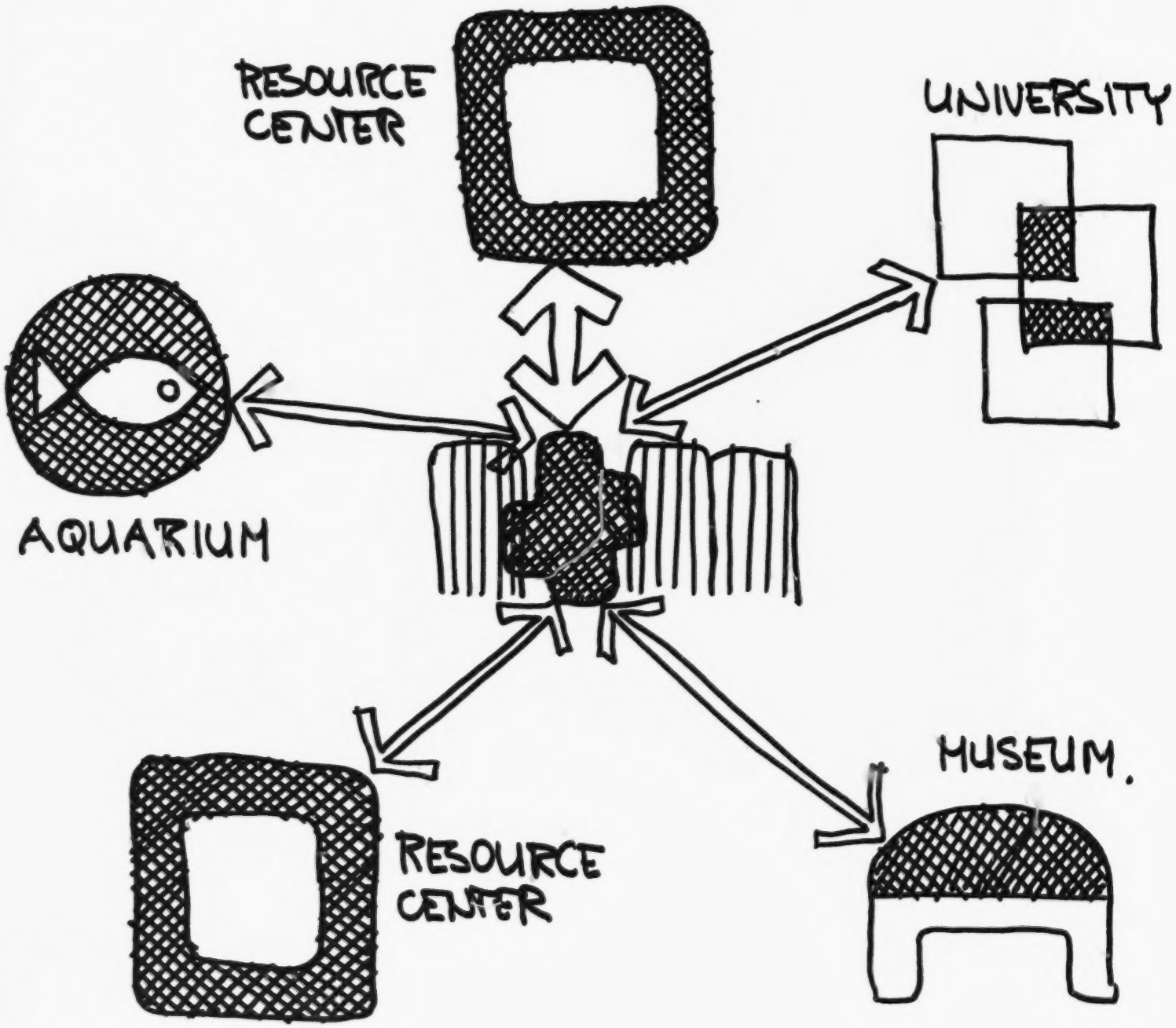
A SCHOOL IS AN ORGANIZATION, NOT JUST A SELF-CONTAINED BUILDING. IT CAN BE HOUSED IN SEVERAL BUILDINGS, EACH ONE SUITED TO A PARTICULAR NEED OR PURPOSE.

LEARNING SPACE IN THE DISPERSED INFILL UNITS WOULD SERVE THE GENERAL NEEDS OF CHILDREN, ESPECIALLY THE YOUNGEST ONES. THEY WOULD BE GRADUALLY INTRODUCED TO THE MORE SPECIALIZED RESOURCES LOCATED IN THE CENTRAL RESOURCE CENTER.

THUS THE CENTRAL SCHOOL BUILDING BECOMES A RESOURCE CENTER CONTAINING FACILITIES AND SERVICES WHICH CANNOT BE DUPLICATED OR DISPERSED. E.G. AUDITORIUM, GYMNASIUM, LANGUAGE LAB, MEDIA CENTER, HEALTH CLINIC.

AN IMPORTANT POINT TO MAKE CLEAR IS THAT THE DISPERSED INFILL SCHOOLS WOULD NOT BE ISOLATED BUT LINKED DIRECTLY WITH THE RESOURCE CENTER. NO CHILD WOULD SPEND ALL HIS TIME IN THE INFILL SCHOOL. EVERY CHILD WOULD ATTEND THE RESOURCE CENTER ON A REGULAR BASIS FOR SOME ACTIVITIES AND INSTRUCTION.

INFILL SCHOOL LINKED TO CITY



LEARNING SHOULD NOT BE RESTRICTED TO SCHOOLS. CHILDREN LEARN BEST THROUGH OPPORTUNITY TO EXPERIENCE A VARIETY OF LEARNING SITUATIONS.

CHILDREN SHOULD BE ABLE TO TRAVEL TO PLACES OUTSIDE THEIR NEIGHBORHOOD ENVIRONMENT, AND SUCH 'FIELD TRIPS' COULD ALSO BE PROGRAMMED INTO THE EDUCATIONAL PROGRAM OF A SCHOOL. A MOVEMENT SYSTEM THEN BECOMES AN INTEGRAL PART OF THE LEARNING EXPERIENCE.

STUDENTS IN DISPERSED INFILL SCHOOLS LOCATED WITHIN WALKING DISTANCE OF THE RESOURCE CENTER WOULD BE ABLE TO WALK THERE IN A GROUP WITH THEIR TEACHER AND PARENT AIDE (MUCH SAFER THAN HAVING SMALL CHILDREN WALK UNATTENDED A LONG DISTANCE TO LARGE SCHOOLS).

STUDENTS LOCATED IN INFILL UNITS FURTHER AWAY FROM THE RESOURCE CENTER WOULD BE BUSSED THERE MUCH THE SAME WAY CHILDREN ARE BUSSED TO MUSEUMS OR THE ZOO ON FIELD TRIPS.

BUSSING CHILDREN TO THE RESOURCE CENTER THUS BECOMES A PART OF THE SAME MOVEMENT SYSTEM THAT TAKES THEM TO THE SCIENCE MUSEUM.

BUSSING IS AN EMOTIVE WORD THESE DAYS, BUT IT NEED NOT BE. EVERY CHILD SHOULD BE PUT IN TOUCH WITH (EXPERIENCE) THE WIDE RANGE OF RESOURCES THAT EXIST IN A CITY, AND IF BUSSING IS THE WAY TO GET THEM THERE, THEN BUSSING SHOULD BE AN INTEGRAL PART OF THE EDUCATIONAL PROGRAM. IN THIS CONTEXT, BUSSING BECOMES CONSIDERABLY MORE POSITIVE THAN MERELY AN ARTIFICIAL DEVICE FOR RACIALLY BALANCING THE SCHOOLS OR RELIEVING THE OVERCROWDING.

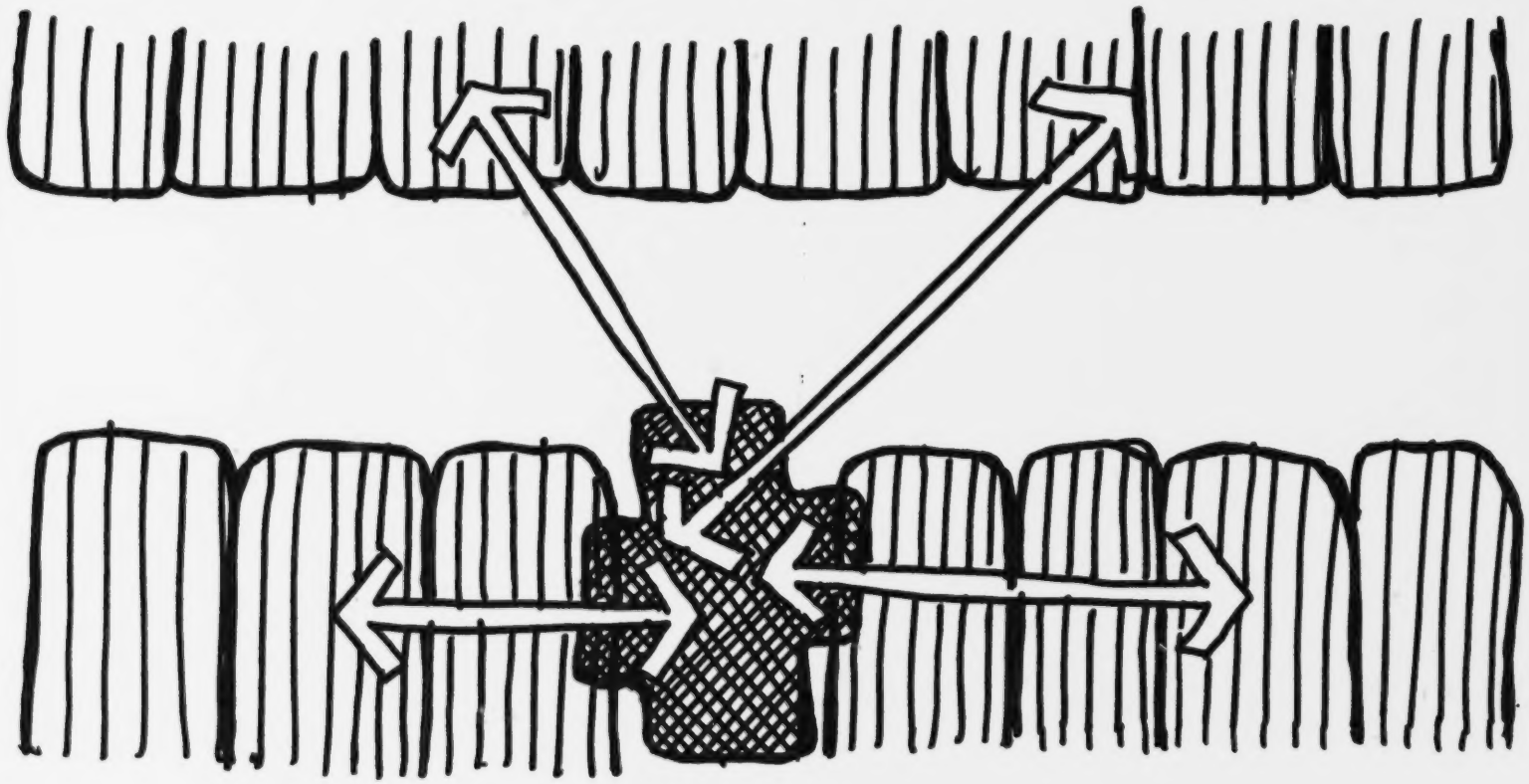
WE DO NOT REGARD BUSSING PRIMARILY AS SUCH A DEVICE, BUT RATHER AS A MEANS OF EXPANDING HORIZONS AND BROADENING EXPERIENCE BOTH IN SCHOOL AND OUTSIDE. AT THE SAME TIME WE DO RECOGNIZE THE POTENTIAL THAT A MOVEMENT SYSTEM LINKING THE INFILL SCHOOLS TO THE CENTRAL RESOURCE CENTER HAS TO EFFECT THE RACIAL DISTRIBUTION OF STUDENTS AND TO ACT AS A POSITIVE FORCE FOR INTEGRATION.

A PROGRAMMED MOVEMENT SYSTEM WOULD ALSO ALLOW THE RESOURCE CENTER TO SERVE A WIDER AREA OF STUDENTS AND THUS ATTRACT A MORE DIVERSE STUDENT BODY. STUDENTS ATTENDING AN INFILL SCHOOL IN THEIR OWN NEIGHBORHOOD NEED NOT GO TO THE RESOURCE CENTER CLOSEST TO THEM, AND YET, THEY WOULD BE ABLE TO MAINTAIN STRONG LINKS TO THE RESOURCE CENTER AS WELL AS TO THEIR NEIGHBORHOOD AND THEIR LOCAL CLASSROOM CLUSTER.

SPECIFICALLY, SERIOUS CONSIDERATION SHOULD BE GIVEN TO BUILDING NEW SCHOOLS NOT AS SELF-CONTAINED SCHOOLS BUT AS RESOURCE CENTERS SERVING INFILL SCHOOLS IN A VARIETY OF NEIGHBORHOODS. THIS SEEMS TO INCREASE THE CHANCES OF PROVIDING NEW EDUCATIONAL FACILITIES FOR CHILDREN IN ALL AREAS OF BOSTON, NOT JUST THE NEIGHBORHOODS WHERE THE GREATEST RESIDENTIAL INTEGRATION MAKES BUILDING INTEGRATED SCHOOLS LESS DIFFICULT. FURTHER, WITH A PROGRAMMED MOVEMENT SYSTEM, ALL STUDENTS WOULD BE TREATED EQUALLY, AVOIDING THE PRESENT STIGMA ASSOCIATED WITH BUSSING.

IMPLIED IN THE SHIFT OF EMPHASIS FROM SELF-CONTAINED SCHOOL TO RESOURCE CENTER IS A GREATER VARIETY OF PROGRAMS AND FACILITIES. THIS WOULD BE FACILITATED BY THE FACT THAT SPACE FORMERLY USED FOR CLASSROOMS WOULD BE FREED, THROUGH THE ADDITION OF INFILL SCHOOLS, TO HOUSE THESE SPECIAL FACILITIES. THUS, GREATER INNOVATION BECOMES POSSIBLE, AND THE SCHOOL FORMERLY OVERCROWDED AND RESTRICTED IN ITS PROGRAM COULD BEGIN TO OFFER MORE SERVICES, ENLARGE ITS TOTAL ENROLLMENT CONSIDERABLY AND THUS NOT ONLY PROVIDE BETTER EDUCATION BUT OFFER IT TO A GREATER NUMBER OF CHILDREN.

INFILL SCHOOL LINKED TO COMMUNITY



COULD EFFECTIVELY INVOLVE WHOLE FAMILIES IN EDUCATION

- USE AND TRAINING OF COMMUNITY AIDS
- NIGHT CLASSES, JOB TRAINING, SOCIAL ACTIVITIES
- GREATER VARIETY OF PARENT-TEACHER-STUDENT ACTIVITIES.

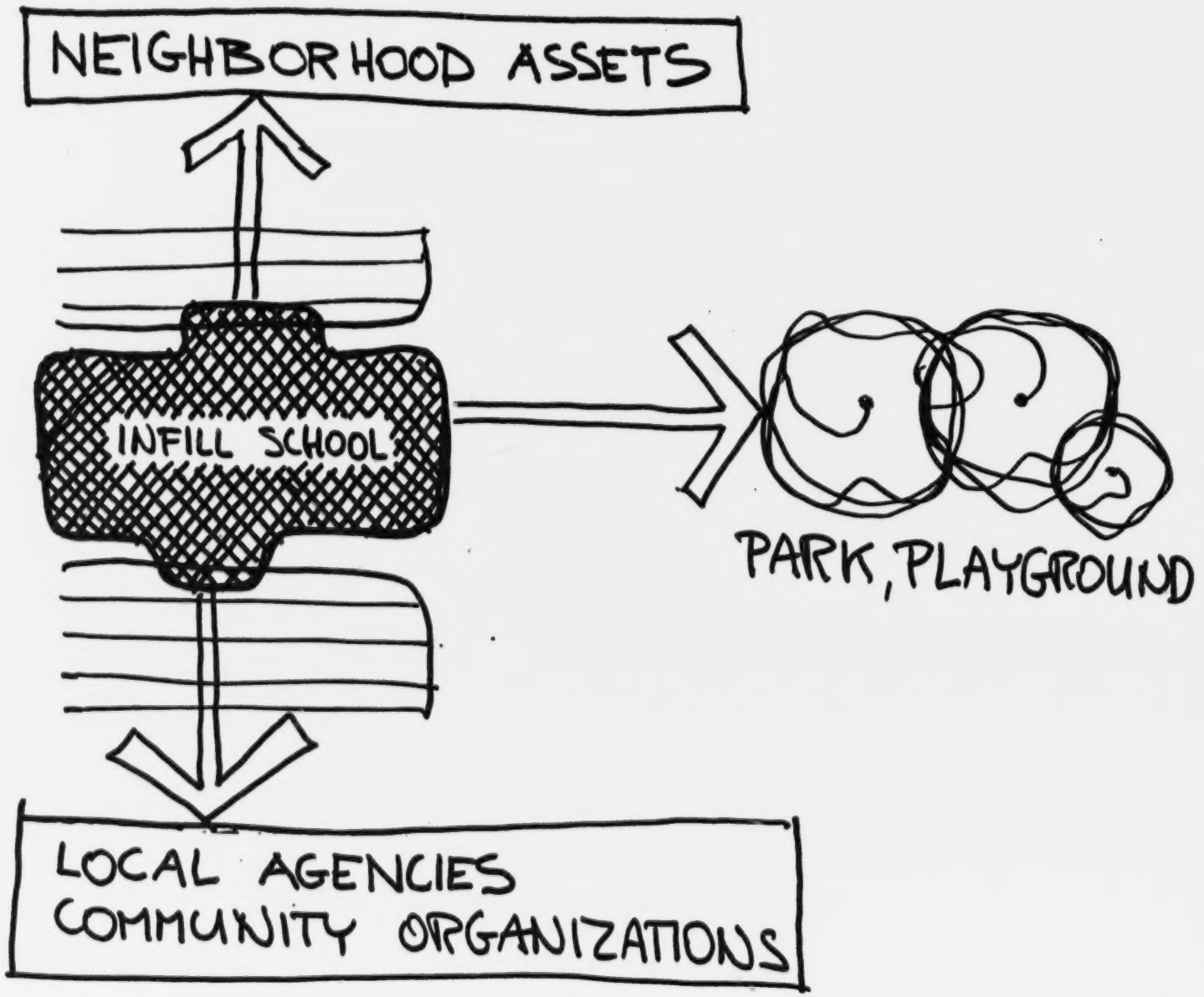
INCREASED COMMUNITY INVOLVEMENT IN THE SCHOOLS IS A CENTRAL ISSUE IN PUBLIC EDUCATION TODAY. IT HAS CAUSED GREAT ANXIETY TO ADMINISTRATORS AND TEACHERS. IT HAS FORCED SOME PARENTS AWAY FROM PUBLIC SCHOOLS. OTHERS HAVE DECIDED COMMUNITY CONTROL IS THE ONLY ANSWER TO THEIR GRIEVANCES.

THE LOCAL DISPERSED CLASSROOM CLUSTERS WOULD OFFER AN EXCELLENT VEHICLE FOR COMMUNITY INVOLVEMENT IN THE AREA IN WHICH PARENTS ARE MOST ANXIOUS TO PARTICIPATE--IN THE CLASSROOM.

THE INFILL SCHOOLS ARE SMALL, AND UNIMPOSING--NOT SYMBOLS OF REMOTE AUTHORITY TO BE CONTESTED FOR. THEY WOULD BECOME ORGANIC PARTS OF THEIR NEIGHBORHOODS AS WELL AS OF THE SCHOOL SYSTEM.

INFILL SCHOOLS, CLOSELY INTEGRATED WITH THE COMMUNITY WOULD EASE THE TRANSITION FROM HOME TO SCHOOL. THE SCHOOL WOULD NO LONGER BE PHYSICALLY OR PSYCHOLOGICALLY DISTANT.

CRITERIA FOR LOCATION OF INFILL SCHOOL



THERE ARE SEVERAL CRITERIA WHICH COULD BE USED TO LOCATE THE INFILL SCHOOLS SO AS TO TAKE ADVANTAGE OF UNIQUE COMMUNITY RESOURCES NOT OFTEN USED BY SCHOOLS.

INFILL SCHOOLS COULD EASILY ESTABLISH RELATIONSHIPS WITH AND MAKE USE OF EXISTING FACILITIES AND PROGRAMS; PARKS AND PLAYGROUNDS, LIBRARIES, COMMUNITY AGENCIES WITH RECREATION PROGRAMS, HEADSTART OR NURSERY CLASSES, ETC. OTHER CRITERIA COULD RELATE TO THE SPECIAL CHARACTERISTICS OF NEIGHBORHOODS, FOR EXAMPLE, CONCENTRATIONS OF SPANISH SPEAKING OR CHINESE FAMILIES.

WE WOULD HOPE THAT THE INFILL SCHOOLS WOULD NOT BE LOCATED ON MAIN THOROUGHFARES OR IN AREAS NOT CONDUCIVE TO THE SAFETY OF STUDENTS. THIS, HOWEVER, CAN EASILY BE AVOIDED.

JUDICIOUS LOCATION WOULD REINFORCE THE INTENT AND SPECIAL OPPORTUNITY FOR CLOSE CONTACT WITH SPECIAL NEIGHBORHOOD RESOURCES WHICH WOULD ASSIST STUDENTS TO INTERPRET THEIR NEIGHBORHOOD AND USE IT AS A LEARNING EXPERIENCE.

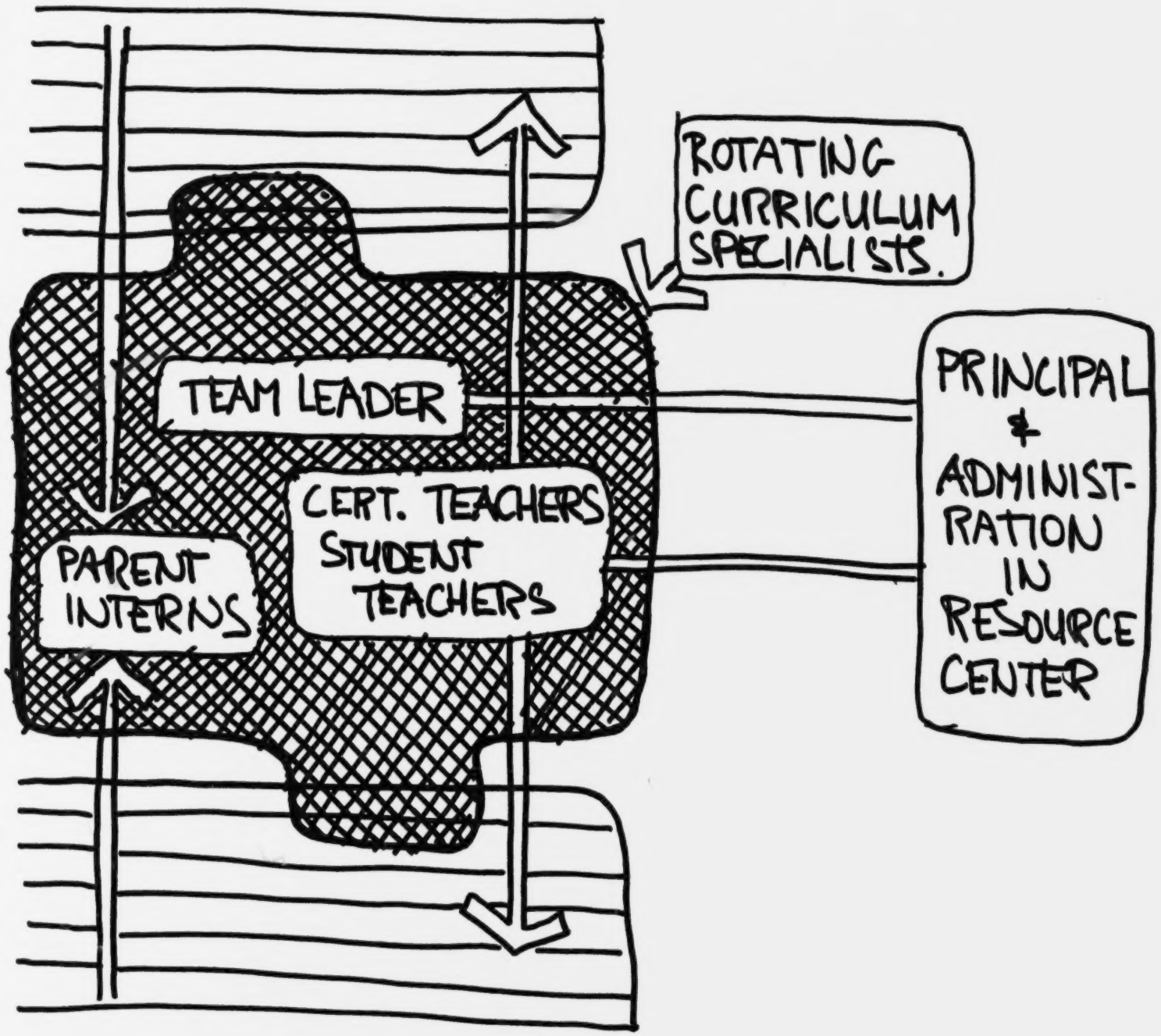
A SPECIAL SITUATION IN WHICH THE SMALL DISPERSED INFILL SCHOOL COULD MAKE A UNIQUE AND IMPORTANT CONTRIBUTION IS IN THE AREA OF TEACHING ENGLISH AS A SECOND LANGUAGE TO BOTH SPANISH SPEAKING AND CHINESE CHILDREN WHO OFTEN HAVE PARTICULARLY SEVERE PROBLEMS ADJUSTING TO SCHOOL. INFILL SCHOOLS LOCATED IN NEIGHBORHOODS WITH HIGH CONCENTRATIONS OF EITHER SPANISH SPEAKING OR CHINESE FAMILIES COULD ACT AS A SPECIAL SUPPLEMENTAL CENTER FOR EARLY LANGUAGE INSTRUCTION. IT COULD CONTAIN SPECIAL FACILITIES FOR SUCH INSTRUCTION AND AT THE SAME TIME GIVE THE CHILDREN THE SECURITY OF THE NEIGHBORHOOD AND THE NEARBY HOME AND FAMILY. PARENTAL INVOLVEMENT AND FAMILIARIZATION WITH SCHOOLS IS OFTEN CRUCIAL TO SUCCESS FOR SUCH CHILDREN, AND THIS WOULD BE NATURAL AND EASY DUE TO THE PROXIMATE SENSITIVITY OF THESE UNITS TO THE LOCAL NEIGHBORHOODS.

THE ADVANTAGE OF THIS SYSTEM FOR NON-ENGLISH SPEAKING CHILDREN IS THAT THE DISPERSED INFILL SCHOOLS WOULD PROBABLY BE CLOSER TO THE CHILD'S HOME THAN THE LARGE SCHOOL AND MORE RESPONSIVE TO THE LOCAL NEIGHBORHOOD CULTURE AND MORE FAMILIAR TO THE CHILD. AT THE SAME TIME, THROUGH THE INFILL SCHOOL, EVERY CHILD COULD REACH A MORE DIVERSE SET OF RESOURCES--BOTH IN SCHOOL AND OUT--THAN CHILDREN WOULD NORMALLY BE ABLE TO EXPERIENCE. CHILDREN WOULD LEARN TO MIX WITHIN AN EXPANDED SOCIAL ENVIRONMENT IN A VARIETY OF ACTIVITIES. THEY WOULD LEARN TO MEET MORE CHILDREN AND MORE ADULTS COMFORTABLY AND SOONER THAN MOST CHILDREN DO NOW.

ENGLISH SPEAKING CHILDREN MIGHT ALSO SPEND SOME TIME IN THESE SCHOOLS WITH NON-ENGLISH SPEAKING CHILDREN LEARNING SPANISH OR CHINESE, THUS REVERSING THE TRADITIONAL ROLE OF THE NON-ENGLISH SPEAKER AS THE OUTSIDER AND BROADENING THEIR OWN EXPERIENCE AND LEARNING. INFILL UNITS MIGHT ALSO BE USED FOR ADULT LANGUAGE TRAINING CENTERS, RUN MUCH MORE ECONOMICALLY THAN PRESENT SCHOOL FACILITIES. OPEN IN THE EVENINGS AND PROPERLY EQUIPPED, THEY COULD ALSO BECOME ORGANIC ADULT CENTERS.

(THE BOSTON PUBLIC SCHOOLS ENGLISH AS A SECOND LANGUAGE PROGRAM IS CURRENTLY PREPARING A TITLE VII PROPOSAL TO SECURE FEDERAL FUNDS FOR ENGLISH AS A SECOND LANGUAGE PROGRAM. WE ARE EXPLORING THE POSSIBILITY OF USING AN INFILL SCHOOL DEVOTED TO TRAINING CHILDREN IN ENGLISH AS A SECOND LANGUAGE AS A POSSIBLE ALTERNATIVE TO TAKING CLASSROOM SPACE IN EXISTING BUILDINGS FOR THIS IMPORTANT PROGRAM.

STAFF ORGANIZATION OF INFILL SCHOOL



ADMINISTRATIVELY, THE DISPERSED INFILL SCHOOLS COULD BE PLACED UNDER THE SUPERVISION OF A TEAM LEADER WHO WOULD BE RESPONSIBLE FOR THE BUILDING, THE CHILDREN IN IT, AND THE REST OF THE TEAM.

THE TEAM LEADER WOULD BE RESPONSIBLE TO THE SCHOOL PRINCIPAL WHOSE OFFICES WOULD REMAIN IN THE RESOURCE CENTER. THIS WOULD INSURE AGAINST THE POSSIBILITY OF THESE DISPERSED INFILL UNITS BEING ISOLATED FROM THE RESOURCES THAT THE SCHOOL SYSTEM CAN PROVIDE. IT WOULD ALSO MEAN UNIFORM SCHOOL ADMINISTRATION IN THOSE AREAS WHERE IT IS NEEDED.

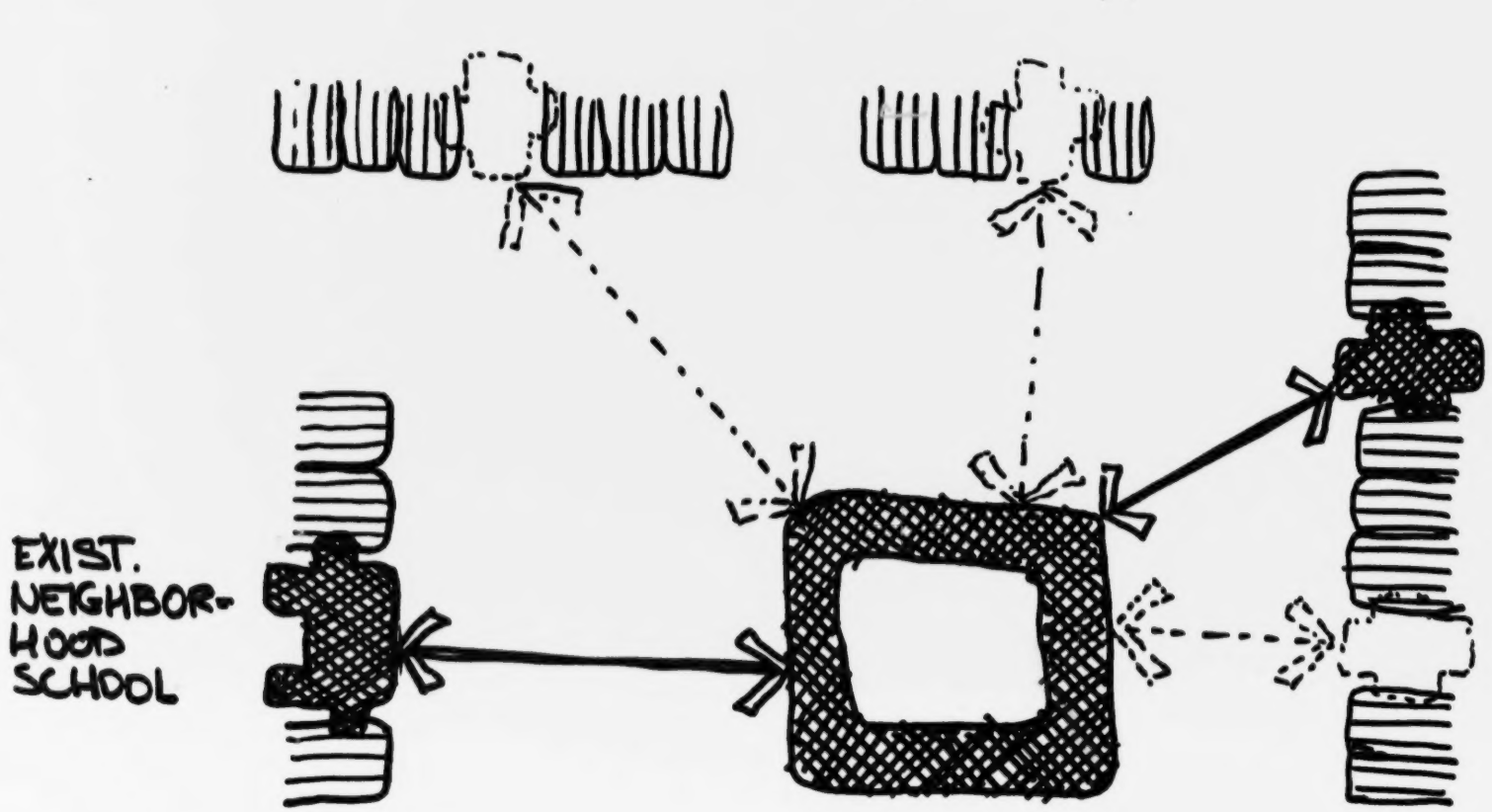
THE TEAM WOULD INCLUDE NOT ONLY THE TEACHERS BUT PARENT INTERNS AND STUDENT TEACHERS, THEREBY PROVIDING STAFF WITH A VARIETY OF SKILLS. ALL WOULD HELP CHILDREN IN THEIR LEARNING ACTIVITIES, THUS ENCOURAGING A TEAM APPROACH TO TEACHING.

THE TEAM WOULD BE AUTONOMOUS ENOUGH TO GIVE THEM THE FLEXIBILITY THEY NEED TO DEVELOP OR CHANGE PROGRAMS AND RESPOND TO INDIVIDUAL STUDENTS' NEEDS.

FLEXIBILITY

OF SIZE OF PROGRAM & DEGREE OF COMMITTMENT

- IN RESPONSE: CAN BE BUILT QUICKLY – CAN ADAPT TO NEIGBORHOOD NEEDS - CAN BE CONVERTED TO OTHER USES.
- IN DECISION MAKING: FUTURE DECISIONS CAN BE BASED ON FEEDBACK FROM PILOT PROGRAM
- IN INITIAL INVESTMENT: NO LAND TAKING REQUIRED - SPACE CAN BE LEASED



THE INFILL SCHOOLS CAN UTILIZE SMALL PARCELS OF LAND ACQUIRED BY THE CITY THROUGH TAX-TITLE SO THAT NO ACQUISITION OR RELOCATION IS NEEDED. THIS ALLOWS FOR QUICKER PROGRAM IMPLEMENTATION

THE INFILL UNITS CAN BE CONSTRUCTED QUICKLY AND HAVE WIDE ADAPTABILITY TO USES OTHER THAN SCHOOLS (I.E. HOUSING), THEREFORE PROVIDING A MEANS TO EXPAND OR CONTRACT STUDENT CAPACITY AS THE CHILD POPULATION CHANGES.

A COMMITTMENT TO THE SIZE AND GROWTH OF AN EDUCATIONAL PROGRAM CAN BE PHASED, WITH DECISIONS BASED ON FEED-BACK FROM PILOT PROGRAMS.

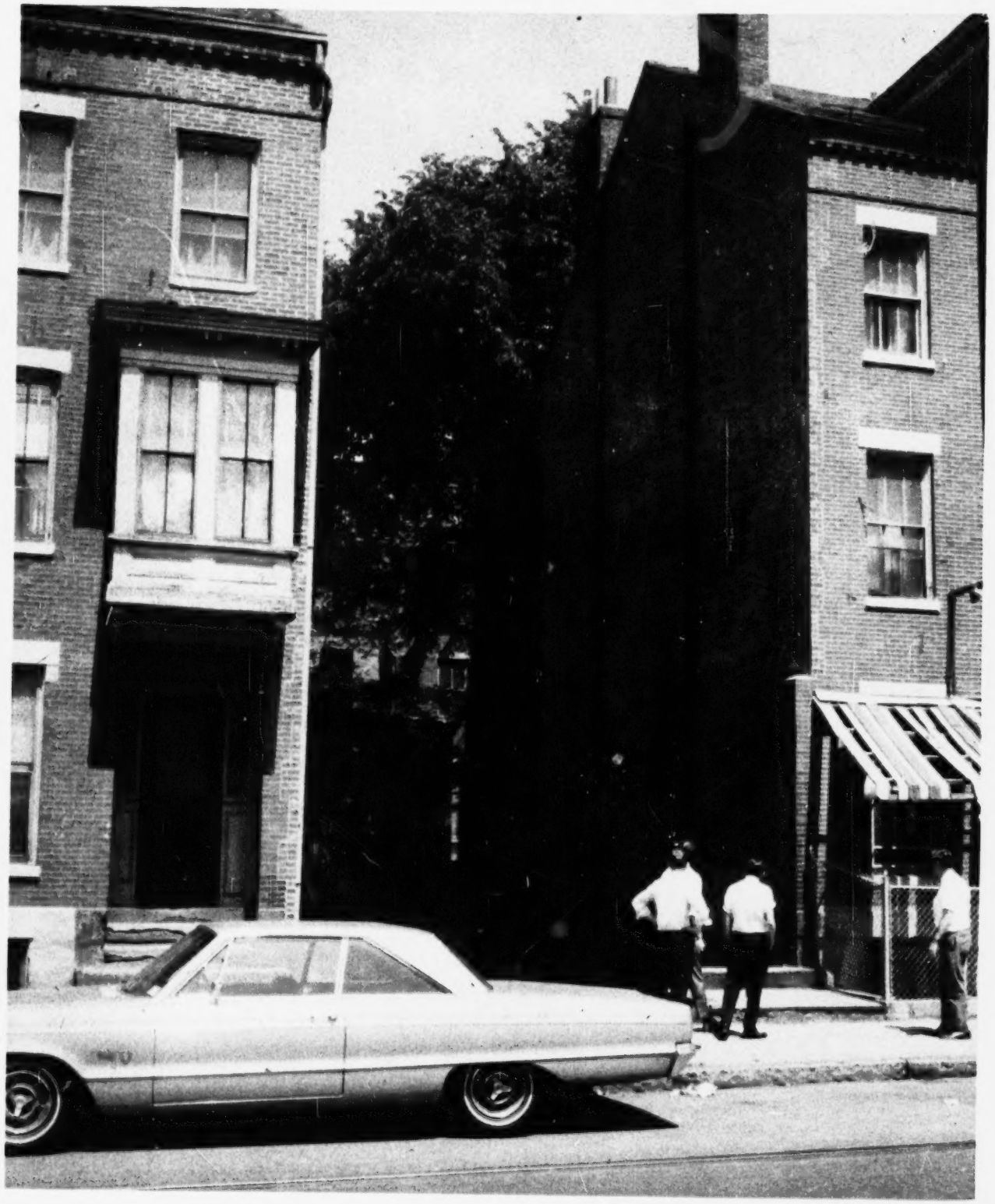
EXISTING SMALLER, OVERCROWDED SCHOOLS COULD ALSO BE SUPPLEMENTED BY THE CONSTRUCTION OF A CENTRAL SCHOOL (RESOURCE CENTER) CONTAINING SPECIALIZED FACILITIES NOT FOUND IN THE OLDER SCHOOLS. IN EFFECT, THE OLDER SCHOOLS THEMSELVES BECOME SATELLITE SCHOOLS TIED INTO THE TOTAL SYSTEM. THUS, STUDENTS IN OLDER SCHOOLS COULD RECEIVE THE BENEFITS OF NEW FACILITIES WITHOUT WAITING FOR 'REPLACEMENT' SCHOOLS TO BE BUILT.

B THE INFILL HOUSING PROGRAM

THE BOSTON INFILL HOUSING PROGRAM WAS CONCEIVED AS A METHOD OF PROVIDING HOUSING IN LARGE QUANTITY BUT IN SUCH A WAY AS TO AVOID MANY OF THE DRAWBACKS INHERENT IN MOST LARGE SCALE HOUSING PROGRAMS. THE PROBLEMS OF BUILDING LARGE CONCENTRATED HOUSING DEVELOPMENTS ARE STRIKINGLY SIMILAR TO THOSE FACED IN BUILDING LARGE NEW SCHOOLS. THE INFILL SOLUTION APPLIES EQUALLY WELL TO BOTH HOUSING AND SCHOOL PROBLEMS.

THE INFILL PROGRAM MAKES USE OF SMALL, GENERALLY TAX DELINQUENT, VACANT SITES SCATTERED THROUGHOUT THE CITY. IT WAS CONCEIVED TO PROVIDE HOUSING FOR LARGE LOW INCOME FAMILIES: THOSE FAMILIES HAVING THE GREATEST DIFFICULTY IN FINDING ADEQUATE HOUSING. THERE IS A GREAT SHORTAGE OF THIS TYPE OF HOUSING THROUGHOUT THE CITY. THE PROGRAM WAS DESIGNED TO REDUCE THE LONG LEAD TIME NORMALLY REQUIRED FOR ACQUISITION, CLEARANCE AND CONSTRUCTION OF LARGE HOUSING PROJECTS. WITH THE INFILL PROGRAM THE POTENTIAL FOR DELAYS IS REDUCED. THE LAND IS ALREADY OWNED BY THE CITY. NO FAMILIES NEED BE RELOCATED. THE STRUCTURE IS COMPONENTIZED AND MADE OF STANDARD UNITS WHICH CAN BE ERECTED QUICKLY. FURTHER, PLANNERS RECOGNIZE THAT THE OLD-STYLE MASSIVE HOUSING PROJECTS OFTEN CREATED MORE PROBLEMS THAN THEY WERE DESIGNED TO REMEDY. THE INFILL PROGRAM AVOIDS ALL THESE PROBLEMS. TAKING LARGE SITES--WHETHER FOR NEW SCHOOLS OR NEW HOUSING PROJECTS--USUALLY MEANS RELOCATING EITHER BUSINESS OR HOUSING. WHEN PEOPLE MUST BE MOVED FROM LARGE AREAS OF OLD HOUSING SO THAT NEW HOUSING CAN BE CONSTRUCTED, SERIOUS DISLOCATION NECESSARILY RESULTS. EXISTING COMMUNITY PHYSICAL AND SOCIAL PATTERNS ARE INTERRUPTED, CAUSING SERIOUS HOSTILITY IN THE COMMUNITY.

USE OF EXISTING SMALL VACANT LOTS FOR INFILL HOUSING PUTS THOSE SITES BACK ON THE TAX ROLLS. IT ALSO PRESERVES THE TAX REVENUES FROM OTHER PROPERTIES WHICH MIGHT OTHERWISE HAVE TO BE TAKEN DOWN TO BUILD NEW HOUSING PROJECTS. THE LATTER POINT HOLDS TRUE FOR NEW SCHOOLS AS WELL AS HOUSING. THUS, THE USE OF INFILL UNITS FOR EITHER HOUSING OR SCHOOLS AVOIDS SERIOUS PROBLEMS OF URBAN RENEWAL ENDEMIC TO THE CONSTRUCTION OF BOTH LARGE SCHOOLS AND LARGE HOUSING PROJECTS.



VACANT CITY LOTS CAN POSE SERIOUS PROBLEMS FOR COMMUNITIES. UNUSED OR MISUSED, THEY CAN CAUSE BLIGHT, CONTRIBUTE TO UNSIGHTLY OR UNSANITARY CONDITIONS. UNLESS BEAUTIFIED AND MAINTAINED, THEY CAN REMAIN EYESORES FAR FROM ANY REALIZED POTENTIAL.

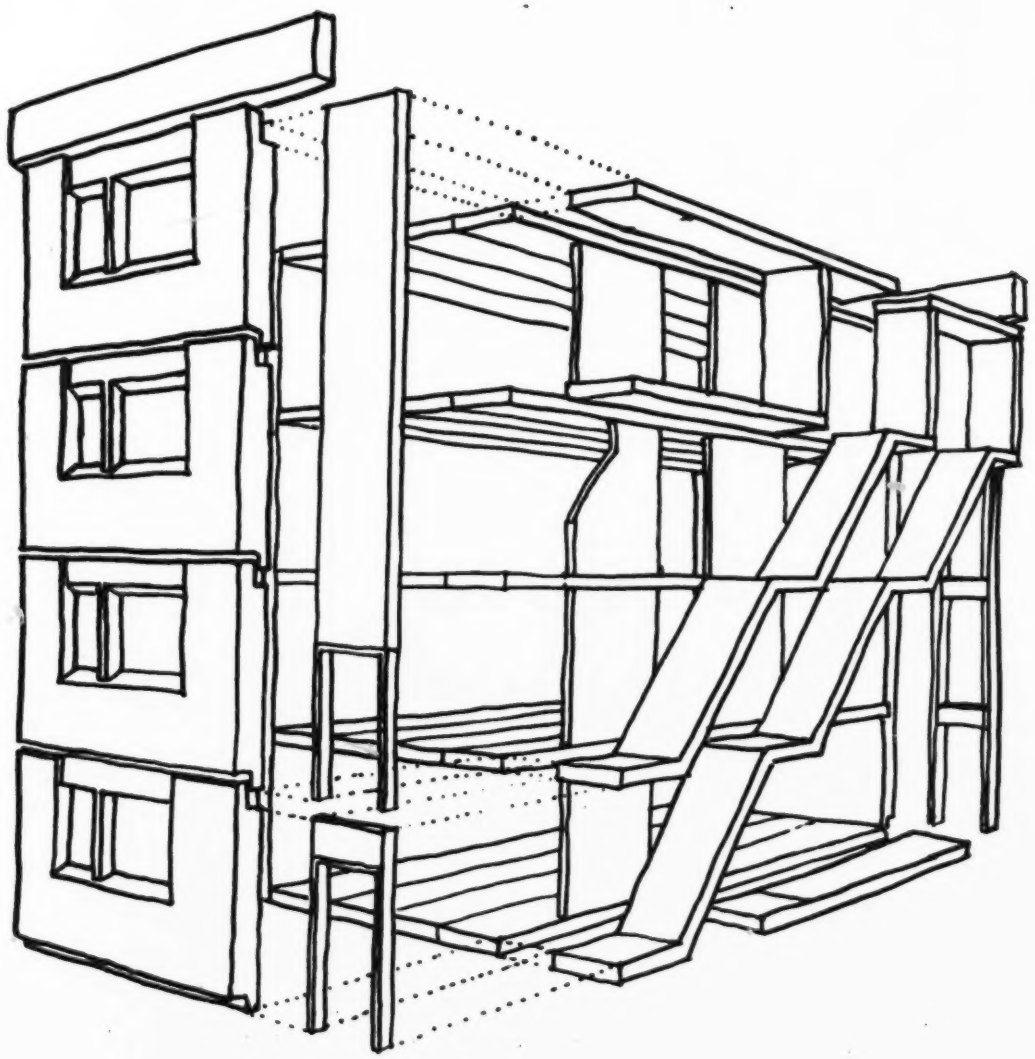
VACANT LOTS CAN BE USED--AND USED EFFECTIVELY--FOR BUILDING, PROVIDED THE BUILDINGS ARE DESIGNED TO MEET A VARIETY OF CONDITIONS. ZONING REQUIREMENTS DIFFER FROM LOCATION TO LOCATION. SO DO THE LOTS THEMSELVES IN TERMS OF SIZE AND PHYSICAL FEATURES. THE INFILL UNIT HAS BEEN DESIGNED WITH THESE PROBLEMS IN MIND, SO THAT THEY CAN BE ACCOMMODATED ON LOTS OF VARYING WIDTHS.

SINCE MAINTENANCE OF SMALL DISPERSED UNITS CAN BE A SERIOUS PROBLEM FOLLOWING CONSTRUCTION, THE INFILL UNITS HAVE BEEN DESIGNED TO REQUIRE A MINIMUM OF MAINTENANCE.

THE INFILL UNIT WAS DESIGNED NOT ONLY TO FILL VACANT LOTS BUT ALSO TO FIT INTO THE VISUAL AND PHYSICAL COMPOSITION OF THE COMMUNITY SO AS NOT TO BE OFFENSIVE OR DISRUPTIVE.

EXPOSED EXTERIOR WALLS REFLECT EXISTING BRICK BUILDINGS COMMON TO URBAN BOSTON COMMUNITIES. PRECAST EXTERIOR STAIRS PRODUCING THE 'BOSTON STOOP' AND IRON BALCONIES COMPLETE THE FINISHED UNIT.

UTILIZATION OF THE SAME BASIC COMPONENTS AS THOSE DEVELOPED FOR THE HOUSING ALLOWS THE SCHOOL TO BENEFIT FROM THE SAME ECONOMIES OF MASS-PRODUCTION THAT HAVE REDUCED THE COST OF THE HOUSING UNITS.

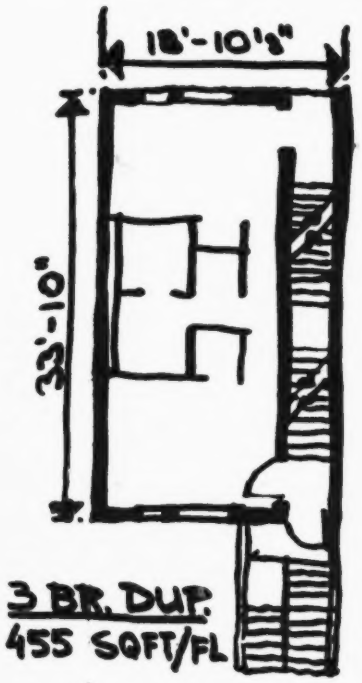


THE INFILL CONSTRUCTION SYSTEM USES A SIMPLE SYSTEM OF MAXIMUM PREFABRICATION BUT CONTAINING A MINIMUM NUMBER OF INDIVIDUAL PIECES.

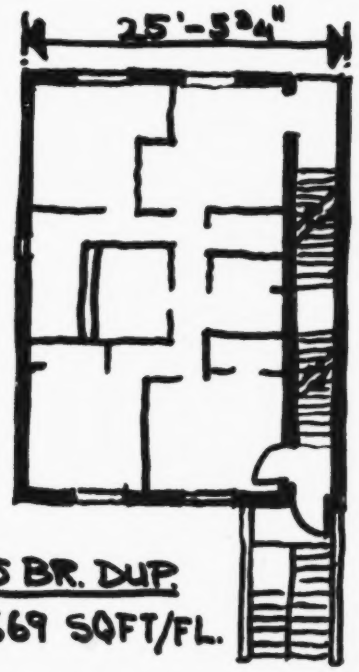
EXTRUDED CONCRETE PLANKS SPAN FRONT TO REAR, RESTING ON PRECAST LOADBEARING FACADE PANELS. FACADE PANELS ARE SUBSEQUENTLY POST TENSIONED AS EACH FLOOR IS ERECTED. NON-LOADBEARING WALL PANELS ARE USED AT SIDE WALLS.

DUE TO THE UNIFORMITY OF COMPONENTS AND THE SIMPLICITY OF STRUCTURE AND ERECTION, AN ENTIRE BUILDING SHELL CONTAINING FOUR APARTMENTS INCLUDING EXTERIOR WALLS, FLOORS, STAIRS AND ROOF CAN BE ASSEMBLED IN ONE DAY. THE INCLUSION OF A PREFABRICATED BOILER AND CONTROL SYSTEMS THEN REDUCES THE REQUIRED INTERIOR AND SITE FINISHING TIME TO SIX WEEKS. RAPID CONSTRUCTION PROCEDURES NOT ONLY LEND THEMSELVES TO REQUIRED PROGRAM ECONOMIES, BUT MINIMIZE THE INTRUSION OF LARGE MACHINERY WITHIN EXISTING ACTIVE NEIGHBORHOODS.

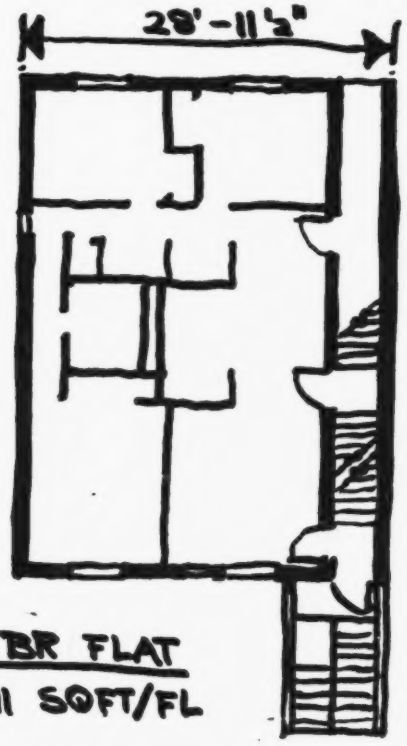
BUILDING SHELL TYPES:



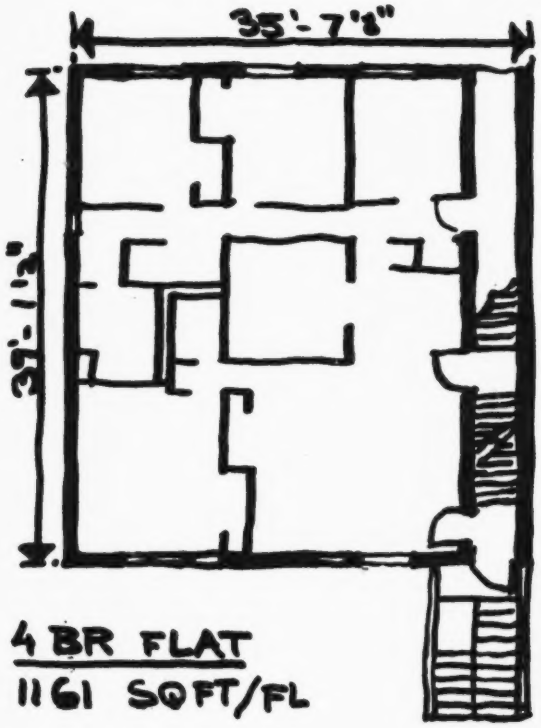
3 BR. DUP.
455 SQFT/FL



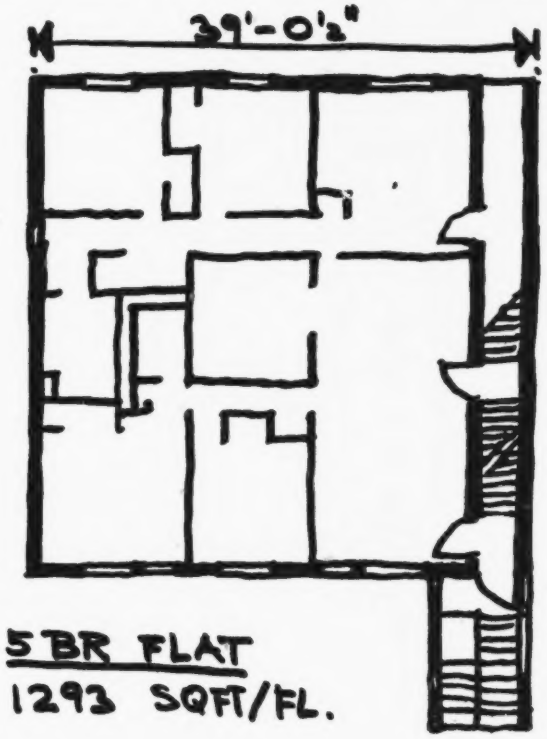
5 BR. DUP.
669 SQFT/FL.



3 BR FLAT
911 SQFT/FL



4 BR FLAT
1161 SQFT/FL



5 BR FLAT
1293 SQFT/FL.

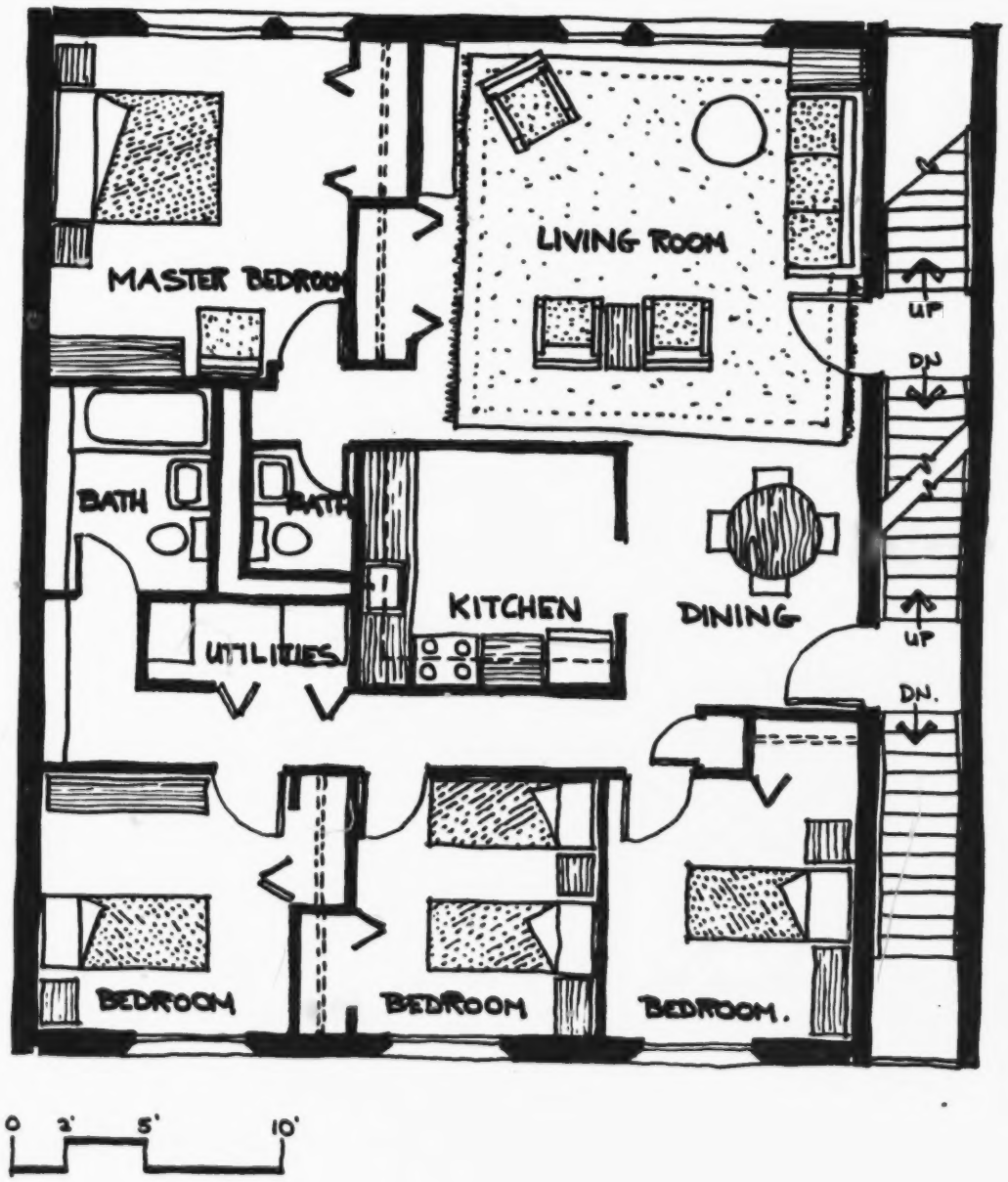
TO MEET THE SPACE NEEDS OF LARGE FAMILY HOUSING, USING EXISTING LOTS OF VARYING WIDTHS, A VARIETY OF SHELL SIZES WERE DESIGNED. THE INFILL UNITS PROVIDE FOUR FLOORS OF CLEAR LOFT SPACE RANGING IN SIZE FROM 445 SQ. FT. TO JUST UNDER 1300 SQ. FT. DEPENDING ON THE SIZE OF THE LOT AND SIZE OF FAMILY FOR WHICH IT WAS CONSTRUCTED.

THE SHELLS, NO MATTER WHAT THEIR SIZES, CAN BE ASSEMBLED FROM THE SAME BASIC COMPONENTS AND CAN BE USED IN A VARIETY OF COMBINATIONS FOR MAXIMUM FLEXIBILITY AND MINIMUM COSTS.

ANOTHER FEATURE IS THAT TWO ADJACENT UNITS (ON A DOUBLE LOT) CAN SHARE THE SAME STAIRWAY, THUS MAXIMIZING BOTH SPACE AND FLEXIBILITY. FOR SCHOOL USE, A DOUBLE UNIT WITH A CENTRAL STAIRCASE WOULD PROVIDE AN EVEN GREATER AREA OF FREE SPAN LOFT SPACE ON EACH FLOOR.

THE OVERALL SIZE FOR LEARNING SPACE COULD BE AS VARIED AS THOSE FOR HOUSING SHOWN TO THE LEFT.

INFILL APARTMENT



THE STRUCTURAL OUTSIDE WALLS, FLOOR SLABS AND STAIRS ARE THE ONLY BUILDING ELEMENTS MADE OF PRECAST CONCRETE. THEY ARE THE ONLY COMPONENTS THAT REQUIRE HEAVY EQUIPMENT FOR ERECTION. THEY ARE THE MOST PERMANENT PARTS OF THE BUILDING.

THE PARTITIONS, DOORS AND CLOSETS THAT SERVE TO COMPLETE THE APARTMENTS INSIDE THE SHELL ARE OF LIGHTWEIGHT, NON-LOADBEARING CONSTRUCTION WHICH CAN BE ERECTED OR CHANGED BY A VERY SMALL CREW USING ONLY HAND TOOLS.

THUS, WHILE EACH INFILL BUILDING WAS DESIGNED TO HOUSE APARTMENTS WHICH ARE MORE THAN ADEQUATE BY THE FHA STANDARDS, THE SPACES IN THESE BUILDINGS CAN BE EASILY ADAPTED TO OTHER USES.

C. THE USE OF INFILL UNITS AS SCHOOLS

ECONOMICALLY, AS ALREADY EMPHASIZED, THE INFILL UNITS WOULD ALLOW EXPANSION OF THE EDUCATIONAL FACILITIES IN BOSTON COMMUNITIES WITHOUT TAKING LARGE PARCELS OF LAND AND WITHOUT WAITING A LONG TIME FOR NEW SCHOOLS TO BE BUILT. LAND FOR THESE BUILDINGS IS ALREADY CITY-OWNED AND VACANT. THE BUILDINGS CAN BE ERECTED AND READIED FOR OCCUPANCY IN A MATTER OF WEEKS. THE NORMAL SCHOOL BUILDING PROCESS TAKES AT LEAST THREE YEARS AFTER ALL THE APPROVALS HAVE BEEN GIVEN AND DECISIONS MADE. THAT IS, THE PROCESS OF LAND ACQUISITION, RELOCATION, DESIGN, BIDS, AND CONSTRUCTION USUALLY TAKES THREE YEARS. IT COULD TAKE EVEN LONGER IN SOME COMMUNITIES GIVEN A HOST OF UNFORESEEN CIRCUMSTANCES.

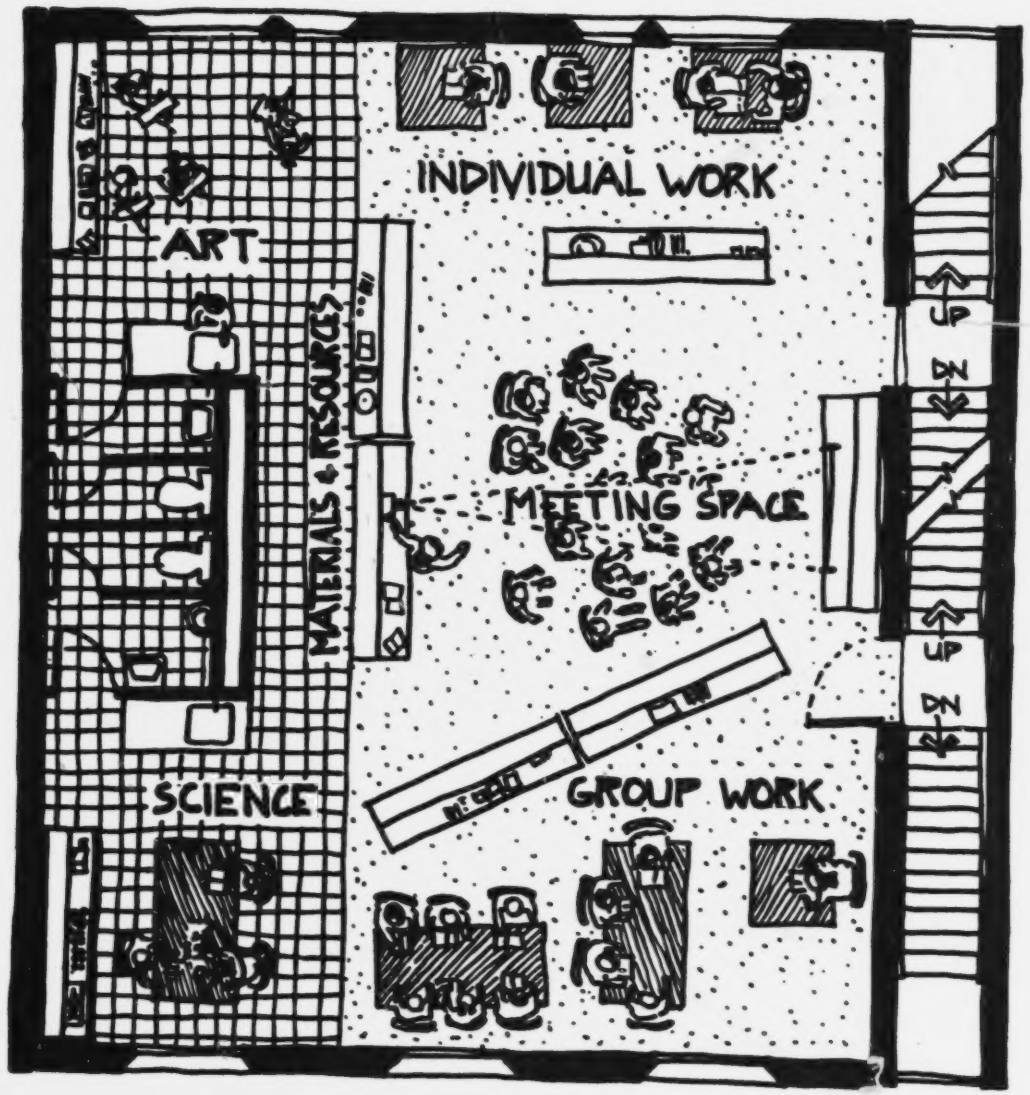
THE INFILL SCHEME CAN SOLVE ALL THESE IMMEDIATE PROBLEMS AND ALSO ALLOW A MORE ECONOMICAL USE OF URBAN LAND BY UTILIZING PRESENTLY VACANT SMALL PARCELS AND REDUCING THE NUMBER OF LARGE PARCELS NEEDED FOR SCHOOLS. THE LENGTHY DESIGN AND BIDDING PROCEDURE FOLLOWED FOR NORMAL SCHOOLS COULD BE SHORTENED SINCE THE INFILL UNITS ARE PRE-DESIGNED AND COMPONENTIZED.

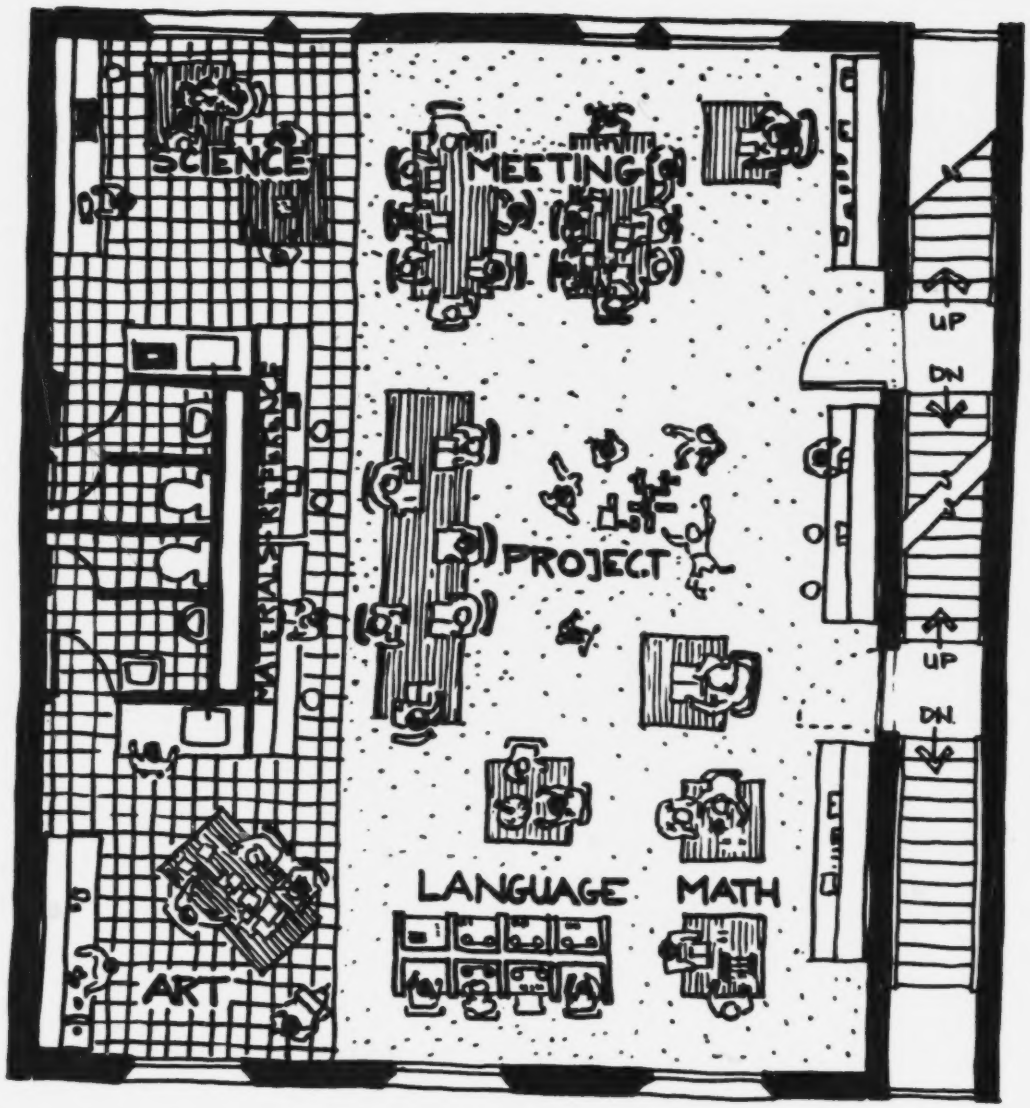
THE COST OF ONE FOUR LEVEL UNIT IS CONSIDERABLY LESS THAN EQUIVALENT SPACE IN A CONVENTIONAL SCHOOL. BY WAY OF COMPARISON, A DEMOUNTABLE--ONE ISOLATED CLASSROOM--COSTS ABOUT THE SAME AMOUNT, AND ABOUT HALF THE INITIAL COST AGAIN TO RELOCATE. WITH THE INFILL CLASSROOMS THE CITY CAN RECLAIM ITS EQUITY. WHENEVER THE NEED FOR THE DISPERSED CLASSROOMS IS OVER (DUE TO NEW CONSTRUCTION, CHANGING NEIGHBORHOODS OR NEW EDUCATIONAL PHILOSOPHY) THE BUILDINGS CAN REVERT TO HOUSING. ON THE OTHER HAND, THEY ARE PERMANENT BUILDINGS AND CAN BE MAINTAINED AS SCHOOLS FOR AS LONG AS NECESSARY OR DESIRABLE. UNDER EXISTING LAWS, INFILL UNITS CAN BE LEASED FOR A PERIOD OF ONE YEAR BY THE PUBLIC FACILITIES DEPARTMENT FOR USE AS CLASSROOMS.

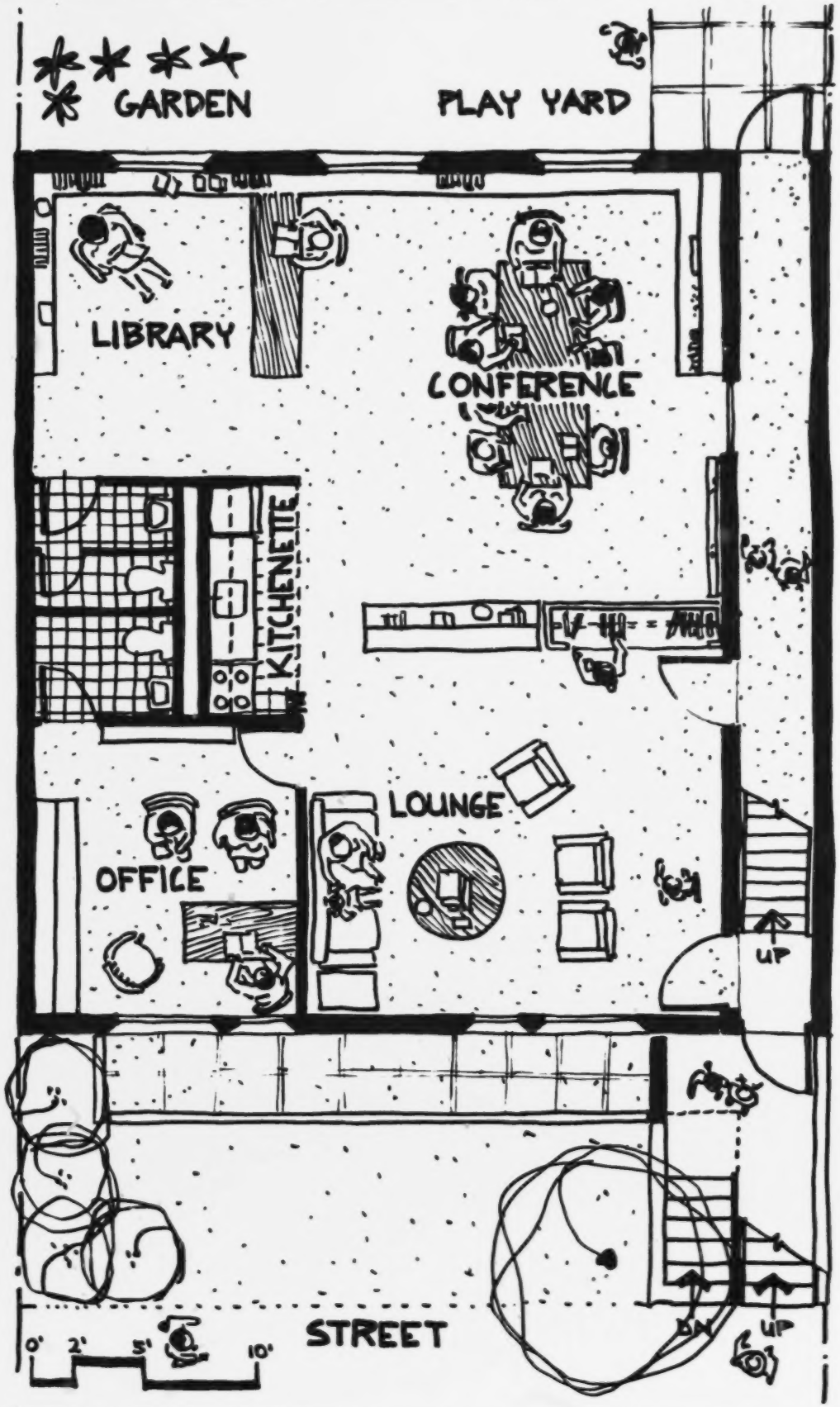
EDUCATIONALLY, THE USE OF INFILL UNITS FOR SCHOOL SPACE SEEMS PARTICULARLY ATTRACTIVE. THE INFILL UNITS PROVIDE FREE SPAN SPACE THAT CAN BE ARRANGED IN VARIOUS WAYS. SUCH SPACE--AGAIN IN CONTRAST TO THE DEMOUNTABLES--SEEMS IDEAL FOR TEACHING. THE INFILL UNITS COULD ENCOURAGE RATHER THAN INHIBIT INNOVATION IN THE EDUCATIONAL PROGRAM. INTERACTION AMONG BOTH TEACHERS AND STUDENTS WOULD BE ENCOURAGED AND COULD TAKE PLACE EITHER VERTICALLY (BETWEEN FLOORS) OR HORIZONTALLY (BETWEEN GROUPS ON THE SAME FLOOR). STUDENTS ALSO COULD MOVE ABOUT BETWEEN VARIOUS GROUPS FOR CERTAIN PERIODS OF THE DAY OR FOR CERTAIN LESSONS. COOPERATIVE TEACHING PATTERNS COULD BE ENCOURAGED. COOPERATIVE TEACHING OPPORTUNITIES COULD ALSO BE BROADENED BY THE INCLUSION OF PARENT INTERNS AND STUDENT TEACHERS AS PART OF THE TEAM.

INFILL SCHOOLS LEND THEMSELVES EASILY TO NON-GRADED GROUPINGS. THIS, TOO, WOULD ENCOURAGE MOVEMENT OF STUDENTS AND TEACHERS AND GREATER INTERACTION. THE INFILL UNITS WOULD ALSO ENCOURAGE RESPONSIVENESS TO THE COMMUNITY BY BECOMING ORGANIC PARTS OF THE COMMUNITY.

INFILL SCHOOL CLASSROOMS

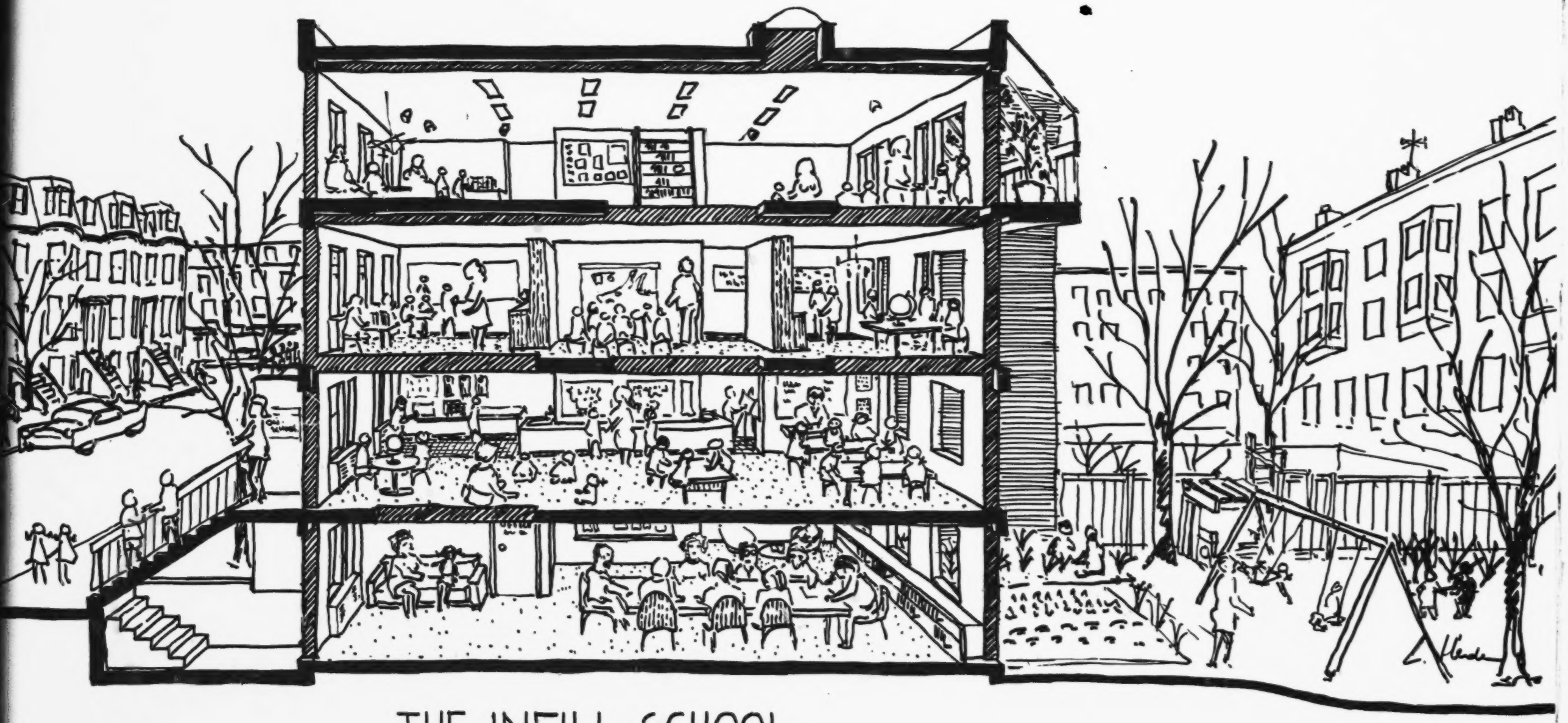






USING INFILL CONSTRUCTION, THE INTERNAL ORGANIZATION OF THE LEARNING SPACES IS EXTREMELY FLEXIBLE. THE PLANS ILLUSTRATED DESCRIBE POSSIBLE ALTERNATIVES TO SPACE ARRANGEMENT USING MOVABLE STORAGE/WORK COUNTER PARTITIONS. THE GROUND FLOOR COULD BE UTILIZED FOR MORE ADULT FUNCTIONS, SUCH AS NEIGHBORHOOD MEETINGS, TEAM TEACHING CONFERENCES AND GENERAL LOUNGE FOR BOTH ADULTS AND CHILDREN. AN IMPORTANT CONSIDERATION WHEN PLANNING FACILITIES FOR A DEVELOPMENTAL PROGRAM IS TO PROVIDE FOR AMPLE STORAGE TO ACCOMMODATE THE ABUNDANCE OF MATERIAL GENERATED BY SUCH A PROGRAM.

IDEALLY, ANY FURNITURE SYSTEM USED SHOULD BE SIMPLE AND DURABLE ENOUGH SO THAT THE CHILDREN THEMSELVES COULD MANIPULATE IT, THEREFORE CREATING THE ENVIRONMENT MOST COMFORTABLE AND RELEVANT FOR THEM.



THE INFILL SCHOOL

SUMMARY

THE SYSTEM OF DISPERSED LEARNING SPACES IN THE INFILL UNITS WOULD ACCOMPLISH THE FOLLOWING:

1. IT WOULD SOLVE THE IMMEDIATE AND ANTICIPATED PROBLEM OF OVERCROWDING COMMON IN BOSTON SCHOOLS;

2. IT WOULD CONTRIBUTE TO A MORE ECONOMICAL USE OF URBAN LAND SPACE AND AVOID THE PROBLEMS OF ACQUISITION AND RELOCATION;

3. IT WOULD USE BUILDINGS WHICH ARE INEXPENSIVE, MEET THE CODES FOR SCHOOLS, AND COULD BE CONVERTED INTO HOUSING WHEN NO LONGER NEEDED FOR CLASSROOMS;

4. IT WOULD ENCOURAGE EDUCATIONAL INNOVATION BY STIMULATING SMALL NON-GRADED CLASSES AND COOPERATIVE PATTERNS OF TEACHING IN THE CLUSTERS AND BY ALLOWING THE RESOURCE CENTER SPACE TO REDUCE CLASS SIZE AND PROVIDE SPACE FOR SPECIAL FACILITIES;

5. IT WOULD OFFER YOUNG CHILDREN QUALITY EDUCATION WITHIN THE SECURITY OF THEIR FAMILIAR NEIGHBORHOODS AND AT THE SAME TIME INTRODUCE THEM TO A WIDER SOCIAL SITUATION AND GREATER EDUCATIONAL RESOURCES THROUGH THE RESOURCE CENTER AND CONTACT WITH OTHER RESOURCES THROUGHOUT THE CITY;

6. IT WOULD BROADEN THE SCOPE OF EDUCATION THROUGH A POSITIVE PROGRAMMED MOVEMENT SYSTEM;

7. IT COULD HELP RELIEVE RACIAL IMBALANCE BY SPONSORING A POSITIVE BUSSING PROGRAM AND BY TREATING SCHOOLS AS ORGANIZATIONS, NOT BUILDINGS;

8. IT WOULD ALLOW FOR GREATER AND MORE MEANINGFUL PARENTAL INVOLVEMENT IN THE CLASSROOMS;

9. IT WOULD ENABLE SCHOOLS TO MEET BETTER THE INDIVIDUAL NEEDS OF STUDENTS, ESPECIALLY THE SPANISH-SPEAKING AND CHINESE STUDENTS' ENGLISH LANGUAGE PROBLEMS;

10. IT WOULD ALLOW FOR DISPERSED UNITS TO FORM CLOSE CONTACT WITH A VARIETY OF COMMUNITY RESOURCES NOT NORMALLY USED BY SCHOOLS;

11. FINALLY, IT WOULD PROVIDE THE BASIS FOR A NEW SYSTEM OF EDUCATION IN THE COMMUNITIES OF BOSTON RATHER THAN MERELY A SYSTEM OF NEW SCHOOLS.

REQUIRED ARCHITECTURAL MODIFICATIONS TO BRING INFILL BUILDINGS UP TO SCHOOL STANDARDS:

LIGHTING:	LIGHTING TRACKS MOUNTED ON CONCRETE CEILING AT REGULAR INTERVALS WITH MOVEABLE FLOURESCENT OR INCANDESCENT FIXTURES.
HEATING AND VENTILATION:	STANDARD SCHOOLROOM UNITS MOUNTED IN OUTSIDE WALL, SUPPLYING EACH CLASSROOM INDIVIDUALLY.
ACOUSTICS:	CARPETING ON MAJORITY OF FLOOR AREA, SOUND ABSORBING TACK BOARDS AND FURNITURE.
SANITARY FACILITIES:	INDIVIDUAL FACILITIES FOR EACH FLOOR THAT COULD USE THE SAME PLUMBING RISERS THAT WERE PROVIDED FOR THE HOUSING.
DOORS:	ALREADY OF ADEQUATE FIRE RATING, BUT MUST BE PROVIDED WITH PANIC HARDWARE TO MEET THE CODES.

D. THE DEVELOPMENT OF A PILOT INFILL SCHOOL

EDUCATIONAL PROGRAM

THE SCALE AND DESIGN OF THE INFILL SCHOOL WOULD TEND TO PROMOTE INTERACTION AMONG STUDENTS AND TEACHERS AND A COOPERATIVE APPROACH TO TEACHING. THE SCALE AND LOCATION IN THE NEIGHBORHOOD BLOCK WOULD ALSO TEND TO PROMOTE CLOSE INTERACTION WITH THE COMMUNITY AND ALL THE RESOURCES IT HAS TO OFFER.

MORE SPECIFICALLY, THE INFILL SCHOOL WOULD PROVIDE AN EXCELLENT ENVIRONMENT FOR CERTAIN PROGRAMS ALREADY DEVELOPED IN BOSTON AND OTHER COMMUNITIES, NAMELY THE DEVELOPMENTAL CLASSROOM AT THE BOARDMAN SCHOOL IN BOSTON AND THE LEICESTERSHIRE PLAN ORIGINALLY DEVELOPED IN ENGLAND, BUT IN INCREASING USE IN THIS COUNTRY, AND THE INDIVDUAL PROGRESS PLAN IN USE IN BOSTON SCHOOLS.

IF EACH CHILD IS TO BECOME A FULLY FUNCTIONING, THINKING PERSON, HIS EDUCATION MUST BE VIEWED PRIMARILY AS A PROCESS OF INQUIRY. ESSENTIAL TO THIS PROCESS IS A RESPONSIVE ENVIRONMENT WHICH ENCOURAGES AND PROVIDES OPPORTUNITIES FOR FREE EXPLORATION, WHERE THE PUPIL'S OWN ABILITY DETERMINES HIS RATE OF LEARNING, AND IN WHICH THE INSTRUCTIONAL MATERIALS ARE INTRINSICALLY MOTIVATING. THE DEVELOPMENTAL CLASSROOM ENDEAVORS TO CREATE SUCH AN ATMOSPHERE.

BECAUSE EACH CHILD IS UNIQUE, NO SINGLE SEQUENTIAL SET OF LEARNING EXPERIENCES CAN BE SET DOWN WITH ANY VALIDITY FOR ALL CHILDREN. THE DEVELOPMENTAL CLASSROOM STRESSES SMALL GROUP INSTRUCTION, PEER LEARNING AND FLEXIBLE SCHEDULING WITH BOTH ASSIGNED AND UNASSIGNED BLOCKS OF TIME.

WITHIN THE CLASSROOM, CHILDREN CONVERSE AND MOVE ABOUT QUITE FREELY. INDIVIDUALS AND SMALL GROUPS OF STUDENTS ARE GENERALLY ENGAGED IN DIVERSE ACTIVITIES. THE EXTENT TO WHICH ACTIVITIES ARE ASSIGNED AND/OR SCHEDULED BY THE TEACHER, DEPENDS UPON THE NEEDS OF THE INDIVIDUAL CHILD AND THE EXPERIENCE OF BOTH THE TEACHER AND THE CHILDREN IN A DEVELOPMENTAL CLASSROOM.

GENERALLY, THE PUPILS IN DEVELOPMENTAL CLASSROOMS ARE GROUPED HETEROGENEOUSLY IN TERMS OF AGE AND ACHIEVEMENT LEVELS. THE PERMANENT LABELLING AND CLASSIFICATION OF PUPILS IS AVOIDED. SUB-GROUPINGS ARE APT TO BE TEMPORARY IN NATURE, ESTABLISHED TO MEET A SPECIFIC, IMMEDIATE NEED. INTELLECTUAL SEGREGATION IS ELIMINATED, AND THE CLASSROOM MORE NEARLY REPRESENTS LIFE'S NATURAL ENVIRONMENT WHERE ONE FINDS PEOPLE WITH VARYING TALENTS AND ABILITIES. IN SHORT, THE DEVELOPMENTAL CLASSROOM PROVIDES A DIVERSITY OF EXPERIENCES AND INTERESTS ON WHICH THE TEACHER CAN BUILD.

THE DEVELOPMENTAL CLASSROOM PROVIDES OPPORTUNITY FOR ACTIVITIES RANGING FROM SELF-DIRECTED INDIVIDUAL EXPLORATION TO STRUCTURED GROUP ACTIVITIES. CLASSES ARE GENERALLY SUBDIVIDED INTO SUBJECT AREAS, TYPICALLY A READING CORNER, MATH AREA, SCIENCE SECTION, ART CORNER, ETC. STUDENTS ARE PROVIDED WITH A VARIETY OF STIMULATING MATERIALS, OFTEN SCRAP AND FOUND MATERIALS WHICH ABOUND AROUND THE HOME AND IN THE NEIGHBORHOOD. TEACHERS ARE PROVIDED WITH TIME TO DEVELOP OTHER MATERIALS WHICH STUDENTS CAN MANIPULATE AND FROM WHICH THEY CAN LEARN.

THE LEICESTERSHIRE PLAN REFLECTS A SIMILAR PHILOSOPHY AND CLASSROOM ORGANIZATION. LEICESTERSHIRE CLASSES MAKE USE OF THE INTEGRATED DAY CONCEPT WHICH IS A CONTINUOUS SYSTEM OF LETTING STUDENTS PLOT THEIR OWN COURSE OF ACTIVITY. AGAIN, A VARIETY OF MATERIALS ARE PROVIDED AS LEARNING AIDS. TEACHERS ACT AS MEDIATORS OR GUIDES TO EXPLORATION AND INTERPRETATION. THERE ARE NO SUBJECTS OR CLASS LESSONS AS SUCH, AND CLASSROOMS ARE DIVIDED INTO SOMEWHAT SPECIALIZED LEARNING AREAS. THE FAYERWEATHER SCHOOL IN CAMBRIDGE IS PERHAPS THE BEST EXAMPLE OF THIS PLAN IN OPERATION LOCALLY.

MUCH REMAINS TO BE DONE IN ADAPTING THESE PROGRAMS FOR THE INFILL SCHOOLS. TWO MAJOR AREAS WHICH REQUIRE FURTHER DEVELOPMENT ARE STAFF SELECTION AND TRAINING (A KEY IN ANY PROGRAM) AND THE SPECIFIC PROGRAMMATIC RELATIONSHIP BETWEEN THE INFILL SCHOOLS AND CENTRAL RESOURCE CENTERS.

PILOT PROJECT

PILOT PROJECTS HAVE OFTEN GENERATED LITTLE TRANSFERABILITY. TOO OFTEN, THEY HAVE REMAINED ISOLATED AND IN CONDITIONS WHICH PRECLUDE EXPANSION. THE INFILL SCHOOL CONCEPT COULD BE ADAPTED TO ANY PART OF THE CITY, AND ONCE A PILOT PROJECT PROVED SUCCESSFUL, IT COULD READILY BE EXPANDED. THE INFILL UNIT IS A STANDARD STRUCTURE SUITABLE FOR ALL PARTS OF THE CITY. SITES ARE AVAILABLE THROUGHOUT THE CITY. IT IS AN INEXPENSIVE CAPITAL INVESTMENT, ONE IN WHICH THE CITY CAN RETAIN ITS EQUITY THROUGH CONVERSION TO HOUSING IF NECESSARY.

WE FEEL THAT THE BASIC CRITERION FOR ESTABLISHING A PILOT PROJECT MUST BE THE DESIRE ON THE PART OF A COMMUNITY TO HAVE SUCH A SCHOOL ORGANIZATION AND THEIR WILLINGNESS TO COOPERATE IN THE FURTHER DEVELOPMENT OF A PILOT PROJECT IN THEIR COMMUNITY.

FURTHER, THERE MUST BE SOME DEMONSTRATED NEED. COMMUNITIES IN WHICH THE SCHOOLS ARE OLD AND OVERCROWDED SEEM TO BE THE MOST LIKELY CANDIDATES. HOWEVER, A DESIRE FOR CHANGE ON THE PART OF A COMMUNITY COULD PROVIDE AN EQUALLY COMPELLING REASON FOR INAUGURATING A NEW SYSTEM OF INFILL SCHOOLS.

OBVIOUSLY THE PILOT PROGRAM MUST BE STRUCTURED IN SUCH A WAY THAT THE INFILL SCHOOLS PROVIDE QUALITY EDUCATION AND PROVIDE IT AT RECURRENT COST LEVELS NO HIGHER THAN THOSE FOR THE NEW, LARGE SELF-CONTAINED SCHOOLS NOW BEING PLANNED.

FURTHER DEVELOPMENTAL WORK MUST BE DONE TO MAKE THIS PROPOSAL A REALITY. INFORMATION ABOUT THE INFILL SCHOOL CONCEPT MUST BE DISSEMINATED TO THE COMMUNITIES OF THE CITY. SINCE WE FEEL THAT COMMUNITY COOPERATION IS ESSENTIAL TO THE FURTHER DEVELOPMENT OF THIS PROPOSAL, COMMUNITIES HAVE TO BE ENCOURAGED TO EXAMINE THE PROPOSAL CRITICALLY. MOST IMPORTANTLY, THE SUPPORT OF SCHOOL DEPARTMENT, THE OTHER CITY AGENCIES INVOLVED, AND THE STATE DEPARTMENT OF EDUCATION MUST BE DEVELOPED.

THIS PROPOSAL HAS BEEN DEVELOPED WITH THE FULL REALIZATION OF THE NUMEROUS STEPS THAT HAVE TO BE TAKEN AND THE WEIGHT OF TRADITION THAT MUST BE OVERCOME. IT HAS BEEN PREPARED WITH THE ASSISTANCE OF CRITICAL COMMENTS FROM SEVERAL SOURCES. THE PROPOSAL IN ITS INFANCY WAS DISCUSSED WITH OVER 100 TEACHERS. THEN, FURTHER DEVELOPED, IT WAS DISCUSSED WITH THE SOUTH END COMMUNITY EDUCATION COUNCIL, FIRST IN COMMITTEE, THEN WITH THE FULL COUNCIL. THE FOLLOWING SECTION ATTEMPTS TO SUMMARIZE CRITICISMS WITH BRIEF RESPONSES. HOWEVER, THE PROPOSAL ITSELF WAS PREPARED WITH MANY OF THESE CRITICISMS IN MIND, AND IT SHOULD BE CLEAR FROM THE TEXT THAT THERE IS A GOOD DEAL OF OPTIMISM THAT ALL THESE CRITICISMS CAN INDEED BE OVERCOME.

CRITICISM: THE INFILL SCHOOL WON'T GUARANTEE QUALITY EDUCATION--GOOD STAFF, NEW CURRICULUM, ETC.

RESPONSE: TRUE--NO BUILDING DOES. THE CURRICULUM MUST GROW FROM THE ACTUAL CLASSROOM ENVIRONMENT AND THE NEEDS OF THE CHILDREN. IT ISN'T STATIC OR SET. TEACHERS MUST HAVE OPPORTUNITY TO PREPARE CURRICULUM. AND, FOR A PILOT PROJECT, A PROGRAM OF STAFF DEVELOPMENT IS ESSENTIAL.

CRITICISM: THE INFILL SCHOOL WOULD BE DIFFICULT TO ADMINISTER. BUILDING SECURITY WOULD BE A PROBLEM IN INFILL SCHOOLS.

RESPONSE: IT IS TRUE THAT THE INFILL SCHOOLS CANNOT BE ADMINISTERED IN TRADITIONAL WAYS. HOWEVER, THEY DO NOT NEED TO BE. THE INFILL SCHOOLS WOULD NOT BE ABANDONED OR ISOLATED. AT THE SAME TIME, THE SCALE OF THE INFILL UNIT CHANGES THE ENTIRE SCHOOL-COMMUNITY CONTEXT. SECURITY FOR THE SCHOOL BECOMES AKIN TO SECURITY FOR THE HOME.

CRITICISM: THE INFILL SCHOOLS WOULD BE RACIALLY IMBALANCED IF LOCATED IN PREDOMINANTLY NON-WHITE AREAS.

RESPONSE: IN CERTAIN AREAS OF THE CITY IT IS HARD TO BUILD ANY RACIALLY BALANCED SCHOOLS--NO MATTER WHAT THE SIZE. IN A SYSTEM OF INFILL SCHOOLS LINKED TO CENTRAL RESOURCE CENTERS, THE INFILL SCHOOLS COULD BE LOCATED IN SUCH A WAY AS TO DRAW A RACIALLY BALANCED MIXTURE OF STUDENTS INTO THE RESOURCE CENTERS. THE SCALE AND FLEXIBILITY OF THE INFILL SCHOOLS WOULD ALLOW A FAR GREATER DEGREE AND GREATER VARIETY OF SOCIAL INTERACTION (AND FOR MANY MORE YEARS) THAN IS LIKELY TO OCCUR IN THE SO-CALLED FRINGE AREA SCHOOLS.

CRITICISM: THE INFILL SCHOOLS LINKED WITH THE CENTRAL RESOURCE CENTER WOULD INVOLVE BUSSING CHILDREN BACK AND FORTH, WHICH IS EXPENSIVE AND JUST WASTED TIME.

RESPONSE: CHILDREN ARE BUSSED NOW ON FIELD TRIPS ALL OVER THE CITY--BUT ONLY ON SPECIAL OCCASIONS. THESE SPECIAL FIELD TRIPS MUST BECOME A STANDARD PART OF EVERY CHILD'S CURRICULUM. IT IS NOT A WASTE OF TIME TO PUT CHILDREN IN CONTACT WITH THE TREMENDOUS RANGE OF RESOURCES THAT EXIST IN THE BOSTON AREA. IT IS VERY EXPENSIVE NOT TO UTILIZE THESE RESOURCES, TO KEEP CHILDREN ISOLATED WITHIN THE SCHOOLHOUSE WALLS. THE SAME ARGUMENT APPLIES TO MOVING CHILDREN TO THE RESOURCE CENTERS. THE ECONOMIES OF SCALE GAINED BY CENTRAL CONCENTRATION OF EXPENSIVE RESOURCES WOULD OFFSET THE COST OF BUSSING. IN ADDITION, THERE IS A BILL NOW BEFORE THE MASSACHUSETTS LEGISLATURE TO HAVE THE STATE BEAR THE ENTIRE COST OF ALL BUSSING PROGRAMS.

CRITICISM: ACCEPTING INFILL SCHOOLS WOULD MEAN ACCEPTING SCHOOLS WITHOUT ADEQUATE COMMUNITY AND EDUCATIONAL FACILITIES.

RESPONSE: SOPHISTICATED AND EXPENSIVE EDUCATIONAL EQUIPMENT AND FACILITIES WOULD BE CONCENTRATED IN THE RESOURCE CENTERS. STUDENTS WOULD BE GUARANTEED ACCESS TO THEM THROUGH A PROGRAMMED MOVEMENT SYSTEM. LARGE SCALE COMMUNITY FACILITIES WOULD BE INCLUDED IN THE CENTRAL RESOURCE CENTERS. THE INFILL SCHOOLS WOULD BECOME ORGANIC TO THEIR NEIGHBORHOODS AND SUITABLE FOR NEIGHBORHOOD ACTIVITIES ON A BLOCK LEVEL.

CRITICISM: USING THE INFILL HOUSING UNIT FOR INFILL SCHOOLS WOULD REDUCE THE AMOUNT OF POTENTIAL LOW INCOME HOUSING SO BADLY NEEDED IN BOSTON.

RESPONSE: LAND-TAKING TO BUILD ALMOST ANY NEW SCHOOL REDUCES THE AMOUNT OF POTENTIAL HOUSING. INFILL SCHOOLS WERE CONCEIVED OF AS A WAY TO AVOID TAKING LARGE PARCELS OF LAND THAT COULD BE BETTER USED FOR HOUSING. NO INFILL PARCEL NOW DESIGNATED FOR HOUSING COULD BE USED FOR INFILL SCHOOLS. THERE ARE OVER 2000 POTENTIAL INFILL SITES THROUGHOUT THE CITY. THE NUMBER DEVOTED TO SCHOOLS WOULD BE INFINITESIMAL.

OF PARTICULAR ASSISTANCE IN THE DEVELOPMENT OF THE CONCEPT AND THE THINKING BEHIND THIS PROPOSAL HAVE BEEN THE FOLLOWING PEOPLE:

EVANS CLINCHY, CONSULTANT TO THE EDUCATIONAL PLANNING CENTER, WHO, LIKE THE AUTHORS, IS SEARCHING FOR ALTERNATIVES WITHIN THE PUBLIC SCHOOL SYSTEM. HE HAS HELPED DEVELOP A SIMILAR CONCEPT WITH REGARD TO THE DISPERSAL OF THE UNIVERSITY OF MASSACHUSETTS, BOSTON.

GRACE WHITTAKER, DIRECTOR OF THE MODEL SUBSYSTEM, TITLE I, WHO HAS HELPED BY PROVIDING IMAGINATIVE REACTIONS FROM THE SCHOOL POINT OF VIEW AND WHO HAS HELPED OUTLINE FOR US THE CONCEPT AND THE ADAPTABILITY OF THE DEVELOPMENT CLASSROOM.

DOROTHY CASH AND MARTY HUNT, BOTH FORMER ELEMENTARY TEACHERS ASSIGNED TO THE EDUCATIONAL PLANNING CENTER AND WHO HAVE BEEN ENGAGED IN DEVELOPING DESCRIPTIONS OF ELEMENTARY CLASSROOM ALTERNATIVES FOR PRESENTATION TO COMMUNITY GROUPS THROUGHOUT THE CITY.

NO DOUBT THERE ARE OTHER COMMENTS THAT VARIOUS PEOPLE WILL HAVE. THE AUTHORS WELCOME THEM IN THE REALIZATION THAT ONLY BY A FULL AND FRANK DISCUSSION CAN THE PLANNING OF A PILOT PROJECT PROCEED.

THOSE DESIRING FURTHER INFORMATION ABOUT THE INFILL BUILDING STRUCTURE SHOULD CONTACT STULL ASSOCIATES, 431 MARLBOROUGH STREET, BOSTON, MASSACHUSETTS, AREA CODE: 216, 267-9585.

THOSE WISHING TO DISCUSS THE INFILL SCHOOL CONCEPT SHOULD CONTACT DAVID ROBINSON OR HENDRIK HOLMES AT THEEDUCATIONAL PLANNING CENTER, 2893 WASHINGTON STREET, BOSTON, 02119; AREA CODE; 216, 445-4242.